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HAY-FEVER: ITS CAUSE AND CURE.

By E. FLETCHER INGALS, A. M., M. D., *Professor of Laryngology, Rush Medical College; Professor of Diseases of the Throat and Chest, Woman's Medical College, Chicago.*

[Read before the Chicago Medical Society, 25th May.]

Synonyms—Hay-fever, Hay-asthma, Rose-cold, June-cold, Idiosyncratic Coryza, Autumnal Catarrh, etc.

The subject of this paper is one which has been before the profession since it was discovered by Bostock in 1819, and within the last twenty-five years it has been the subject of careful research by numerous diligent workers; however, it is only recently that anything like a satisfactory solution of the difficulties attending its treatment have been reached.

The disease is met with commonly in the southern part of England, but is comparatively rare in other parts of Europe, while in Asia and Africa it is said that only Europeans are affected by it. In the United States it is a very common

affection which drives thousands from their homes every year, and makes miserable many more who are unable to make the change of climate which has hitherto been the only remedy for the malady.

Notwithstanding the generally received opinion that it is caused by the pollen of certain grains, examples of it are much less frequent among those living upon farms, where they are constantly exposed to the pollen, than among those living in villages, and these latter are less likely to suffer from it than the residents of cities.

This might, with considerable propriety, be called an aristocratic affection, as it seldom attacks any but those in comparatively easy circumstances, though it occasionally occurs among others. I have seen a few well-marked examples among the laboring class.

In this country, hay-fever usually makes its appearance about the middle of August and continues until the first frosts of the autumn, but in England it is most prevalent in June and July. However, numerous cases are observed in the early spring, and isolated cases, which might be better defined by the term, idiosyncratic catarrh, are occasionally seen in the winter months. These latter, though not excited by pollen are clearly due to similar conditions in the patient, which favor the development of attacks from a considerable variety of exciting causes.

During an attack of hay-fever, the mucous membrane covering the turbinated bodies is greatly swollen and usually, though not always, congested, and the congestion often extends to the palate, fauces, pharynx and conjunctivæ. Microscopic examinations of the secretions have discovered numerous vibriones, which by many, following the theory of Helmholtz*,

* Virchow's Archives. Feb., 1869.

have been thought to be the cause of the affection; but as the same objects may usually be found in the secretions of the nasal cavities at other times, it is thought that the presence of these is merely accidental. Various substances floating in the atmosphere have been found to act upon the respiratory mucous membranes of certain individuals in such manner as to give rise to the train of symptoms, which taken together represent the affection known as hay-fever. These substances do not cause the affection *per se*, but merely act as irritants, for any of them indiscriminately may affect some individuals, while only certain ones can excite the affection in others. The substances which have been found to be the most common exciting causes of the affection are the pollen of the grammaceæ which is found abundantly in the air in England during the months of June and July, when the disease is most prevalent, and in America by that of Ambrosia Artemisiæfolia, (ragweed or hogweed) when the plant is in full bloom during the months of August and September.

But besides these, the pollen of rye, wheat, oats, Indian corn and other grains are active with some persons, and still other agents may produce similar effects in patients affected by peculiar idiosyncrasies. For example, dust and the emanations from various drugs, flowers, animals, etc. These latter circumstances explain the origin of the peculiarly appropriate term idiosyncratic coryza.

These and other facts in the clinical history seem strongly to support the theory that cases of so-called catarrh in which the slightest provocation, such for example, as passing from a warm to a cold room or the reverse, or passing from the shade into the bright sunlight will excite frequent sneezing, as neither more nor less than examples of imperfectly developed idiosyncratic coryza or, as commonly known, hay-fever.

Why the substances mentioned should affect certain individuals and not others is a question which has engaged the attention of the profession for a long time, but it has only recently been satisfactorily answered. The more or less severe attacks in the same individual which may at different times be brought on by the same substance are analogous to the varying severity of the attacks of neuralgia which may be excited by exposure to cold; and, as in the latter instance, they undoubtedly result from the condition of the nervous system instead of from any special quality in the exciting agent.

When the nervous system is exhausted by over work, loss of rest, or imperfect nutrition, it becomes irritable and then agencies, which during perfect health might be innocuous, will in one excite neuralgia; in another an acute catarrh, and in a third a well developed attack of hay-fever,—the peculiar manifestation being determined by a peculiar susceptibility of certain nerves, which from some unknown changes, become acutely sensitive.

The theory of a nervous origin of hay-fever has been generally accepted by the profession, but it was vaguely referred to the whole nervous system and until recently no one suspected what now seems an established fact, viz., that the tract involved is sharply defined and usually more limited than that in a typical case of intercostal neuralgia.

In 1882, Daly*, of Pittsburgh, first called attention to the peculiar sensitiveness of certain portions of the nasal mucous membrane in individuals suffering from hay-fever, and later, clinical observations of Roe,[1] of Rochester, N. Y.; Sajous,[2] of

*Archives of Laryngology, Vol. II.

1. N. Y. Medical Journal, May, 1883.

2. Medical and Surg. Reporter, December, 1883.

Philadelphia; Hack,[1] of Freiborg; and Allen,[2] of Philadelphia, and the physiological experiments of Mackenzie,[3] of Baltimore, localized the sensitive tract for the majority of cases on the inferior turbinated bodies and the lower and back part of the septum. In a few individuals much more of the nasal mucous membrane is involved, and it is probable that, in very rare cases, the sensitive tract will be found to extend to the fauces and possibly to the bronchial mucous membrane, though usually during an attack the involvement of the pharyngeal and bronchial mucous membranes is due to the extension of the inflammation from the part first affected.

The later experience of the physicians just mentioned and that of several others, with my own observations, leave no doubt in my mind that the theory rests on a foundation of fact. In the majority of cases the posterior third of the inferior turbinated bodies and the lower part of the posterior two-thirds of the septum are the only sensitive parts, but in a considerable number of cases the sensitive parts are even more limited, though in some the middle turbinated body and the anterior portions of the septum and lower turbinated bodies are also involved.

The sensitive areas are not uniform in different cases. They are commonly found in patches which may be either in one or both nares, and, in some, they may be found on any of the parts already described.

Some years ago, Professor Helmholz found certain vibriones in the secretions from the nares of hay-fever patients which he supposed were the cause of the disease; and he concluded that the local application of quinine, or other agents destructive

1. Wein. Med. Worchen., August, 1883.
2. Am. Jour. of Med. Science, January, 1884.
3. N. Y. Med. Record, July, 1884.

to these minute organisms, ought to cure the affection. This treatment has been extensively employed and numerous cases have been relieved; but unfortunately for the theory it has been shown that not only weak solutions of quinine but also those of soda or other non-irritating substances are equally efficacious, the germicidal properties of the solution having nothing to do with the result. The relief therefore must be attributed to cleansing of the nares from the pollen or other irritating particles or to the soothing influence of the remedy upon the terminal nerve-fibers in the mucous membrane.

Clinical experience points to the nervous origin of the affection and locates the principal changes in the branches of the spheno-palatine ganglion and nasal nerves; but we are unable to discover in what these changes consist. They seem, however, analagous to the condition in neuralgia and hyperæsthesia.

As a result of irritants coming in contact with these sensitive surfaces some change takes place in the vaso-motor nerve which is shown by sudden swelling of the erectile tissues in the nares. But substances causing hay-fever seem to act in some way differently from ordinary irritants, for, notwithstanding the swelling, in some cases there is no congestion whatever of the mucous membrane.

The primary effect of the irritation is to cause profuse secretion from the nares with swelling of the mucous membrane. This partially or wholly occludes the nares and necessitates mouth-breathing, with consequent irritation of the throat. The asthmatic symptoms which attend a considerable number of cases may be caused directly by irritation of the bronchial mucous membrane, but more probably they are usually the reflex result of the nasal obstruction and irritation.

Prolonged contact of the irritant will, in most cases, set up

an acute inflammation of the Schneiderian mucous membrane, which may extend to the mucous membrane of the eyes, ears, throat and bronchi.

In this country patients are usually attacked about the middle of August, and they soon learn to foretell the time of the attack almost to the hour. Generally the first symptoms are similar to those of a cold in the head, attended by frequent sneezing and burning pain with profuse secretion from the nose and eyes. Rarely the first symptoms are referable to the naso-pharynx and fauces. The eyes and nose soon become red, swollen and tender, and usually the temperature is slightly elevated. There is sometimes extreme suffering. Very soon nasal respiration is greatly interfered with, and in many cases asthmatic attacks add to the discomfort.

During the height of the attack the profuse discharge frequently causes erosion of the nostrils and upper lip; the conjunctivæ are occasionally much inflamed and the fauces are more or less congested. At the same time examination of the chest will often discover numerous bronchial rales. These symptoms ordinarily continue with greater or less severity from two to six weeks. In some cases they do not disappear until the first sharp frosts of the ensuing autumn.

In those who have previously suffered from the disease there is little difficulty in making a correct diagnosis; but in first attacks the affection may be readily confounded with an ordinary severe cold in the head. The principal points to notice in forming a diagnosis are: the periodicity of the disease, its sudden accession, the sensitiveness and swelling of the nasal mucous membranes; the asthmatic symptoms and the obstinacy of the attack as compared with an ordinary cold or spasmodic asthma.

The affection is not of itself serious though from suffering

and loss of rest the patient may become so exhausted as to fall an easy prey to other disease. Each attack may be expected to continue for several weeks only to disappear with the change in the season ; and the disease may be confidently expected to recur for many years ; though with some the tendency to it gradually disappears.

In the treatment of this affection as in that of all other intractable, self-limited diseases, many remedies have from time to time been vaunted as specifics, but all medicinal measures have been found sadly wanting in curative properties. Many times remedies have been employed in individual cases with apparently good results ; but upon the next case in which they have been tried they have either proven inert or actually injurious. This is readily understood if we consider that without any treatment the symptoms sometimes speedily disappear. In the first case the remedy may have been given just as convalescence was to begin ; while in the second the person may have been growing worse at the time.

Of a vast number of medicines recommended for internal or local use I have not time to speak ; but I may safely say that with few exceptions, which I will soon mention, they are of very little value and we should not encourage patients to expect relief from them ; though they may be tried in cases where the proper treatment cannot be carried out. Of the drugs which may be employed internally with a hope of warding off or lessening the severity of an attack, quinine, strychnine, arsenic and iron are of more or less value, from their influence in promoting the general health and building up the nervous system. Valerian, assafœtida and phosphide of zinc are also useful, for their anti-spasmodic effects.

In the inception of the attack benefit has been derived from the local use of a weak solution of quinine, carbolic acid or

tincture of opium, but these remedies will only help a small number of cases and they may utterly fail, even in these, on a second trial. These same remedies are recommended for the fully developed disease but usually they give very little relief.

Sedative powders composed of morphia, bismuth, iodoform, starch, etc., have sometimes given relief, while in other instances they have greatly aggravated the patient's sufferings.

For the asthmatic symptoms we may employ the same measures, which have been found useful in simple spasmodic asthma, chief among which are the inhalation of the fumes of nitre-paper, stramonium, hyoscyamus, etc., and the internal use of morphia and chloral ; but they will be found much less useful than for the simple spasmodic affection. In a word it may be said that the medicinal treatment of hay-asthma is in the highest degree unsatisfactory. As a result, all patients who can, resort to climatic treatment. In a large portion of cases this is effective in preventing the attack or at least in modifying its severity. However, the inconvenience of this course and the impossibility in many cases of having it followed have made physicians untiring in their efforts to discover some other means of preventing or curing the disease. These efforts have been rewarded by the discovery of a method of treatment which we believe will cure the disease in nine cases out of ten, if carried out before the attack begins. We have also found a remedy which promises much for the relief of fully developed cases.

A few weeks after the discovery of the anæsthetic properties of cocaine laryngologists* called attention to the peculiar

*Dr. Bosworth, of N. Y., was the first to point out this peculiarity, which he did in the N. Y. Medical Record, Nov. 15th, 1884; but before his article appeared I had already sent to press an account of my first experiments with the new anaesthetic, which was published in the Journal of the American Medical Association of the following week. In both these articles this property of the drug referred to and its application suggested in hay-fever and other affections which cause swelling of the nasal mucous membrane.

property possessed by the drug of causing speedy contraction of swollen mucuous membrane in the nares when applied in solution, or in the form of a powder. At the same time it was suggested that cocaine would probably relieve many of the distressing symptoms of hay-fever, but as yet no typical case has occured on which it might be tried. However, it has been used with great success to relieve the annoyance caused by swelling of the turbinated bodies in acute and chronic rhinitis, and from a large experience with it in these affections, I feel, confident, that it will be of value in the treatment of the disease now under consideration.

Although typical hay-fever only occurs in the summer or fall months, isolated cases of idiosyncratic coryza are met with in early spring, or even in winter; which from their peculiar course and close resemblance to typical cases of hay-fever, seem to be identical with the latter excepting in the accidental exciting cause. These cases are attented by severe paroxysms of sneezing, with coryza and lachrymation, stuffing up of the nose and sometimes paroxysms of asthma—symptoms exactly like those of ordinary cases of hay-fever.

One such case came under my observation during the past winter, which although having no asthmatic breathing was in every other respect similar to hay-fever. In this case I gave the patient a 2% mixture of cocaine with starch, which was blown into the nose as soon as the paroxysm came on. It gave immediate and perfect relief, though it did not at once cure the attack, which lasted for several days. In this patient the paroxysms came on in the evening, but a single application was usually sufficient to check it at once; however, sometimes it was necessary to repeat the application three or four times during the night, the symptoms being relieved each time within half a minute. Another attack came on a couple of weeks

later which was promptly relieved in the same manner. This is the only case of idiosyncratic coryza that I know of which has been treated by this remedy; however, when considered with a large number of cases of hypertrophic catarrh, which I have relieved in the same manner, it gives me great confidence in recommending cocaine, for its temporary effects in hay-fever.

In hypertrophic catarrh I have found that patients who are obliged to use the remedy frequently, will, after a few weeks, cease to derive much benefit from it; though if discontinued for a time it will again act well. I presume the action would be similar in hay-fever patients. I conclude that although cocaine is a palliative agent of wonderful power, we cannot expect it to cure the disease.

Successful treatment by the galvano-cantery, which was first thorougly tried by Dr. Roe, had, previous to last May, been applied by Drs. Roe, Allen and Sajous to about thirty cases, about 80 per cent. of which were reported cured, and the operators believed that all could have been cured if the treatment had been completed. During the past year other laryngologists have adopted the same treatment but its results have not been recorded, as most of the patients have not gone through a hay-fever season since the treatment. Many of the patients who were treated last summer began the treatment so late that it could not be completed before the attack came on and therefore they did not escape. My own patients, whom I considered but partially cured, as a rule went through the season with much less discomfort than formerly, and the only one in whom I had time to carry the treatment to the end had no return of the disease.

Since last August I have treated several cases thoroughly, and judging from their present condition and the experience

of others I expect them to go through the coming season without a recurrence of the attack.

As the disease is caused by a peculiar sensitiveness of the terminal branches of the spheno-palatine ganglion and nasal nerve which are distributed over the septum and turbinated bodies, the treatment to be effective must remedy this hyperæsthetic condition. The means adopted for accomplishing this consist of applications of glacial acetic acid, carbolic acid and other escharotics, and searing the membrane with the galvano-cantery.

Sometimes mucous polypi exist which must be removed; hypertrophy of the turbinated bodies may be present, which must be connected or the spur of a deflected and thickened septum must be sawed off. The treatment by chemical agents will sometimes succeed but will often fail, while the galvano-cautery properly used cannot fail to remove the excessive sensibility and leave the membrane in a healthy condition. Successful treatment usually requires from ten to twenty sittings and should be completed before the attack comes on, therefore, as an interval of three to five days is desirable between each sitting, the treatment should be begun early in the season.

The plan which I adopt, and which has been found so successful by others, is to sear slightly with the galvano-cantery every portion of the peculiarly sensitive membrane; using a small electrode and cauterizing but a small place at each sitting. I first carefully examine the nasal cavity with a slender, flat probe by which the sensitive spots are located. I then pass the cold electrode into the naris, and having reached the spot to be cauterized, turn on the electricity, whereby the wire is instantly heated. It is then applied for a fraction of a second to the diseased tissue, causing a small superficial burn. This operation is repeated at each subsequent sitting until all the

sensitive spots have been relieved; care being taken not to burn too much at once lest it cause an uncomfortable inflammation. Even without an anæsthetic if a good battery* is used and proper electrodes, the pain caused by this operation is slight, in most cases, but some persons feel it severely for an instant. Heretofore, a few of these patients preferred to have the disease rather than suffer the treatment, and consequently they could not be cured; but fortunately the anæsthetic properties of cocaine now enable us to treat all cases without pain.

In applying the cocaine I use a 4 per cent. solution in distilled water, which I drop upon the surface from a small syringe at regular intervals of about two minutes. Usually the parts will become anæsthetized in twelve minutes, occasionally eight minutes is sufficient to produce anæsthesia, but frequently it will require twenty or thirty minutes and, rarely longer. In one case in which I was producing anæsthesia for a different purpose it required over an hour's time and about five grains of the cocaine.

After the cauterization, when no anæsthetic has been used a spray of Dobells' solution should be employed to relieve smarting. During the intervals between treatment patients should keep the nares cleaned by insufflations or spray of soda and water or Listerine. The latter is sometimes highly useful for its antiseptic properties.

In conclusion, the following points seem to me established with reference to the treatment of hay-fever.

1st. Nearly all cases may be cured by systematic, thorough, superficial cauterization of the hypersensitive portions of the nasal mucous membrane, providing the treatment is carried out during the interval between the attacks.

*I employ a powerful two-celled bichromate of potash battery which which was made for me by Sharp & Smith, of this city.

2nd. The most effective and least painful means of accomplishing this, is by the galvano-cantery.

3rd. Care must be exercised to treat every sensitive spot, and not to cauterize too large a surface at once.

4th. The operation may be made painless by a proper use of hydrochlorate of cocaine.

5th. In nervous subjects general treatment must not be neglected.

6th. The effects of cocaine in hypertrophic catarrh, and in the case of idiosyncratic coryza just reported, render it highly probable that it will give much relief in many cases of hay-fever.

64 State Street, Chicago.

THE CONTINUED PELVIC CURVE IN THE OBSTETRIC FORCEPS, WITH REMARKS ON FORCEPS IN GENERAL.

By EDWARD WARREN SAWYER, A. M., M. D., *Chicago.*

[Read before the Chicago Medical Society, June 15th, 1885.]

The obstetric forceps is defined by Velpeau and by writers generally, as a variety of pincers intended to draw the fœtus from the mother. But the same definition applies to two distinct classes of extracting instruments whose offices are diametrically opposed to each other. The one, of which the cephalotribe may be taken as the representative, is devised for the sole purpose of destroying the contour of the head, and, as a result, the destruction of the fœtus. The office of the forceps, on the other hand, is to extract a living fœtus without injury. I may go a step further and say that the perfect obstetric forceps is an instrument with which it is practically impossible to injure the mother or fœtus.

The object of this communication is to call attention to several features which this instrument must possess to be the harmless extractor. Extensive series of measurements have been made, and repeated by numerous authorities, of the constant unyielding canal through which the fœtus is to pass, and of the constant unyielding head of the fœtus which is to be passed. From these observations certain constant dimensions are established, which are known as standard, for the bony canal and the head of the fœtus.

If we turn for a moment to a more particular examination of the forces invoked in the use of the forceps, it will be seen that they are practically two: Compression of the head, by which its dimensions are lessened within safe limits, and trac-

tion, by which the expulsive forces of nature are reinforced. Both these forces are conjointly invoked whenever this instrument is used.

It is the first-named force, that of compression of the head, which contains the element of danger to the offspring, and consequently that which should be under the complete control of the operator. Repeated observation has shown that the various transverse diameters of the fœtal head may be lessened by compression a trifle more than one-half inch, without danger to the fœtus. In fact, it is probable that in the great majority of labors, compression takes place to this degree, caused by the natural forces alone.

Given then the standard or usual size of the bony pelvis, the fœtal head and the safe limit of compression, it becomes an easy task to construct an instrument, that portion of which that is to grasp the head within the pelvis, shall possess certain dimensions and be called standard. That such dimensions should be described, seems warranted from the foregoing; and yet I am not aware that any text-book contains such a description of standard forceps for the guidance of a student who is to select an instrument.

In may be stated in general terms that the various diameters of the flexed fœtal head which would be grasped by the forceps in vertex labors, are three and three-fourths inches. Subtracting the margin of one-half inch for safe compression, there remains a space of three and one-fourth inches which should exist between the compression surfaces of the blades at the moment of greatest compression, or when the inner surfaces of the handles are in contact.

The instruments which I now exhibit have respectively two and one-fourth inches, Tannier, and two and one-fourth inches, Hodge. They are, therefore, not forceps, accord-

ing to our definition, but crushing instruments; and while their compressing force may be to a certain extent limited and controlled by the skillful hand, it is always dangerous in the hands of the ordinary practitioner.

This feature I regard second in importance to none other. It being accepted, the long diameter of the ellipse bounded by the conjoined grasping curves of the blades, should next be considered. Experience has shown that this ellipse should be five and one-half inches in length. It is open at both extremities. When the handles are closed the distal opening of the ellipse, corresponding to the separation of the tips of the blades, may be three-fourths of an inch. While the anterior opening corresponding to the distance between the shanks of the blade, at five and one-half inches from the tip, should be two and one-half inches. Should this distance be materially lessened, injury to the head cannot be avoided when compression is made. In these instruments already shown, which are not unlike many in this respect to be found in the shops, there is a separation of but one-half an inch at the tip, and an opening of one and one-fourth inches at the anterior opening of the ellipse in Tannier, and in reality no opening at all in the instrument of Hodge.

The width of the blade at the widest part may be one and one-half inches; but this is a point of less importance than that next in order. In selecting an instrument a straight edged ruler should be placed at right angles with the long diameter of the blade upon its inner surface, to determine if the outer edge of the blade and the border of the fenestra are on the same plane. If they are not the instrument should be rejected on this ground if upon no other; for upon this disparity depends in a great measure the injury inflicted to the fœtal scalp.

The next important feature of the forceps is the lock. All devices for locking the blades belong to two classes. Both admit of almost unlimited lateral hinge movement, but one variety only, the mortise lock of Smellie, admits of a certain additional movement, backward and forward, by means of which the end of the handles can be slightly slipped past each other. The second variety of lock is a button, or thumb-screw which so fixes the blades as to preclude any degree of backward and forward movement of the handles. With this explanation these locks may be called respectively loose and fixed.

A simple inspection will enable one to determine which lock is safe, simple in construction and easy of operation, while the other is dangerous to the child, complicated and usually difficult of cperation. The infinite superiority of the loose mortise is at once accepted in recalling a single fact in practice: It is only in the exceptional case that the blades grasp the head exactly upon its sides, or upon any two opposite and parallel planes. In the majority of cases the head plane occupied by one blade is oblique with reference to the other. It is obvious then that if no mobility exists in the lock that the blades press unevenly upon the head; indeed only one border of the blade may rest upon the head, and receive the entire compressing force which should be shared by both borders equally. As a result I have seen one edge sink to a shocking depth into the skull. Even a slight degree of mobility at the lock is considerably increased at the ends of the blades.

Before leaving this part of the instrument I desire to call attention to a special feature which, for want of a better name, I have called the heel of the blade. This rounded prominence upon the lower border of the blade, nearly opposite the beginning of the fenestra, finds its most dangerous exaggeration in the instrument known as the Davis forceps, although many

instruments perpetuate what I feel justified in pronouncing a dangerous fault. It increases the weight and bulky appearance of the instrument. It does not add to the grasping power of the blades; for the head is usually grasped at a point beyond this prominence. Above all it is a real menace to the woman's soft-parts, which it too often succeeds in tearing. In fact, in a given case when this instrument was being used by a highly competent practioner, I had an opportunity of an ocular demonstration of fact that the margin of the woman's vulva was torn by these heels before the head itself had reached the perineum.

It seems proper in this connection to call attention to another fact, viz.; that in compressing the fœtal head the closest imitation of nature is the safest to follow; and that a moment of compression should be at once followed by a loosening of the head. Consequently those instruments which admit of the handles being fixed together, by means of a screw or other device, can not be included among safe extracting instruments.

The remaining part of the forceps is called the handle, of which the length, largeness, shape and other particulars are as varied as the ingenuity of the inventors. In fact it is only in this part of the instrument that any inventor can claim any pronounced originality since the days of Smellie, who added the pelvic curve, and the mortise lock already alluded to.

In one particular, however, the handle should be considered. It is obvious that the greater the leverage possessed by the handles, the more easily is the compressing power of the instrument to be invoked. Consequently the length of the handles should be such as to allow the operator to reserve his forces for difficult traction.

The rounded space just in front of the lock, allowed by the

separation of the shanks, is a feature accredited to Ramsbotham, the elder. It admits of the introduction of the finger, or a napkin. It has special value, as a point of traction when the greatest degree of compression is not demanded. Besides this traction point Simpson has added the shoulders at the beginning of the handles, and others have copied from him in a ring to receive the finger, with some disadvantage.

The blades of an instrument to be entirely reliable should be constructed of the best of steel, which should be at least one-fourth of an inch square at the shank; from this size the material may be thinned to 3—32 of an inch in thickness at the tip of the blades. Slighter material than this I have seen so yielding as to allow the blades to be pulled off the head.

The earliest cases of forceps labors, which occured under my observation, demonstrated to me one fact which further experience has strengthened and confirmed. In passing through the pelvic excavation, the part of the head in the posterior half of the woman's pelvis, (the sinciput in the occipito-anterior vertex positions, the occiput, in the occipito-posterior) when the proportions are usual, is forced to sweep over the deep, curved plane of the posterior wall of the excavation, in the same time that the anterior part of the head is traversing the shallow anterior wall. There results from this inequality of distances traversed, a movement of extension of the fœtal head in occipito-anterior positions, and the opposite movement, or flexion, in occipito-posterior positions.

If an index be fixed to the head, as for example the handles of a forceps, in such a manner as to follow the directions given to the head by the unaided efforts of nature, an irregular curved line would be described forward and upward which would have its termination, at the moment of the escape of the head, at a point near the umbilicus of the woman.

Throughout the length of the bony portion of the parturient canal, this curved line should be the guiding line to the attendant who attempts to reinforce the expulsive force of the uterus with the forceps. The curved direction which the handles will take is in an exact relation to the degree of descent of the head, and is to be learned practically at the bedside.

Of course it is not a question here of those rare cases where the forceps is applied when the head is yet unengaged above the superior strait.

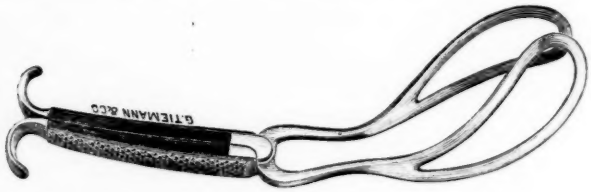
When the head has almost freed the bony section of the canal, and is retained chiefly by the soft parts, the writer has for a long time in practice interfered with the natural movement of evolution executed by the head (extension or flexion) and has compelled the head to escape in a decidedly flexed state, thus presenting its smallest diameter to the ostium vaginæ. This interference he holds to be the greatest safe guard of the perineum.

To more easily follow the curved line of descent indicated by nature, even for the inexperienced operator, I have continued the pelvic curve through the entire length of the forceps; selecting for my model the well-known instrument of Simpson as possessing the standard features already described. I have also added an entirely new handle which has been found efficient.

Continued pelvic curve in profile.

One advantage remains to be mentioned: In those cases

where the occiput presents posterior, and it is decided to deliver in this position, the curve of this instrument enables the operator to grasp the head well forward over the ears. Under these circumstances this is the only instrument which in my hands has not slipped over the occipital pole.



*Long Forceps, length along the curve 17 inches, weight 23 ounces.

The smaller instrument has all the essential features of the larger except force. It is only suitable, obviously, to very low head positions; but in my own practice and in that of others of my acquaintance its use is invoked many times oftener than that of the long instrument.

Short Forceps, length along the curve 12 inches, weight 8 ounces.

A feature which merits notice is the baking of the hard rubber handles by the Tiemann process which greatly lessens the danger of the handles being carriers of filth and infection.

*First mentioned in the Chicago Journal and Examiner, May 1878, page 499. Note.—Exhibited to the American Gynæcological Society, Chicago, Sept., 1884.

THE NORMAL POSITION OF THE UTERUS AND ITS RELATION TO THE OTHER PELVIC ORGANS. *By* FRANKLIN H. MARTIN, M.D., *Chicago.*

Anatomy.—I will endeavor in discussing the anatomy of the pelvic organs not to go into unnecessary details, but confine myself to that part of the topography and anatomy of the organs that are subjects of dispute, or, that have been but very recently settled. In considering disputed and unsettled questions, the most that we have a right to do is to take into consideration our own observations, extract from theories, facts, and from the combined evidence impartially draw our conclusions. Among authors of greatest reputation the normal position and condition of the uterus is still a subject of doubt and discussion. To a casual observer it would not seem a difficult matter to settle definitely the true position and relation of the female pelvic organs. During life they admit of the most thorough examination in every way, and after death they are as available for examination apparently as other organs whose topography and anatomy have long been definitely settled.

However, if we take a more critical view of the subject we can discover good reasons for the diversity of opinion that exist. (1) On account of the great mobility of all the parts concerned—the bony pelvis that contains the organs is freely movable upon the long bones of the lower extremities, and the slightest movement here of the pelvis changes the relation of the pelvic organs with the horizontal to just that extent; the natural movements between the pelvis and the spinal column above changes to just that extent the relation of the pelvic organs and the other organs of the trunk. (2) Each organ of the pelvis has functions, the performance of which changes its

position and shape. All of these organs are distensible, and as they distend and contract in performing their natural functions, their normal position and relation may constantly vary —if all the pelvic organs are empty and collapsed, they occupy less room, and the vacuum caused by this contraction is filled, if not by the compressible connective tissue surrounding these organs, by the movable organs from above. (3) It is a question whether every respiration of a female does not change the relation of these organs. Every cough or sneeze makes its influence felt upon the relation of these organs to each other and the surrounding parts. (4) A great deal of pains has been taken by anatomists to make frozen sections of the pelvic organs in order to show accurately their relation. Even this has not been a success. It is found that death necessarily changes the relation of these organs—the circulation is stopped, which in life gives the various organs a fullness and erectility; the mucous and serous membranes, the ligaments and connective tissues loose their necessary elacticity; the muscular tissue of the various organs have lost their natural tonicity and are in an unnatural state of relaxation. Therefore, in consequence of these many changes incident to death, a frozen section cannot be entirely free from objections. True, certain devices have been carried out with commendable exactness in detail and earnestness to overcome even some of the objections to frozen specimens, but, as yet, it must be admitted that frozen specimens are not free from objections. (5) At last, if we put aside all other difficulties given above, we find that our methods of examination preclude the possibility of arriving at definite results. A digital examination at once separates the anterior and posterior walls of the vagina, transforms the normally flattened tube into an open cylinder; as we continue our examination, the conjoined manipulation, however carefully done,

changes the position or location of the uterus, influences the bladder and compresses the rectum. The most skillful specular examination changes the relation of almost every organ in the pelvis. After considering these few prominent reasons for our ignorance in regard to position of these organs, our uncertainty is not so much a matter of astonishment. There is no doubt, however, but that these difficulties will eventually be overcome by honest perseverance, and a great many of the unsettled questions satisfactorily adjusted, if we carefully consider the accumulated results obtained in the experiments of conscientious observers. At best, in medicine and surgery, it is only by repeatedly verifying clinical results claimed by others, that we are enabled to arrive at definite conclusions. In order to elucidate what seems to us the most rational views on the topography of the pelvic organs, we must first construct a diagram. (See page containing diagram.) The outlines of this diagram should correspond to a lateral view of an anterio-posterior section of the bony frame of the pelvis, and they should be carefully proportioned by a general average of measurements deduced from the tables of measurements of FOSTER and LITZMAN —two authorities who have done conscientious work in unraveling the pelvic problem. Within this outline representing the frame of the pelvis will afterwards be arranged its contents, their position corresponding to the latest views of the best authorities.

The Pelvic Canals.—In considering the anatomy of these canals we will take the liberty of quoting AMBROSE L. RANNEY to considerable extent—from his series of excellent articles published in the *American Journal of Obstetrics*, commencing in the March number of 1883.

"The transverse section of the pelvis (first devised by Henle to show the normal outline and relation of the three pelvic canals, viz.: the urethra, vagina and rectum) is now accepted as

accurate. It shows that the vagina and rectum are not open tubes, but that they exist when not distended as mere slits in the pelvic section. The long axis of the vaginal slit is transverse, and corresponds, as HART puts it, to the mouth of the woman in its general direction; that of the rectum is directed anterio-posteriorly, thus forming a right angle with the long axis of the vaginal slit; while the urethra appears as a puckered and closed tube." This view, as favored by RANNEY, is not shared by all anatomists and gynecologists, and will be more fully dwelt upon in discussing the rectum.

The Perineum.—"This structure seems to be composed of a large excess of elastic tissue intermingled with the muscular fibers of the bulbo-cavernosus, sphincter-ani externus, transversus-perinæi and ischio-coccygeus muscles, and also some fibrous tissue derived from the ischio-perineal ligaments, the deep layer of the superficial perineal fascia, the perineal septum and deep perineal fascia. The result of the fusion of these structures is to produce a body which shall combine a great resistant power with a high degree of elasticity, two elements most essential to this part from its situation and the strain which it is called upon to bear. The perineal body prevents pouching of the anterior wall of the rectum, when the sphincters are contracted. THOMAS attributes to this body the function of a support to both the anterior rectal and the posterior vaginal walls."—(RANNEY.)

The Vagina.—"As has been previously stated, this canal appears as a transverse slit in that section of the pelvis devised by HENLE to show the relative position and appearance of the three pelvic canals. In the antero-posterior median section of the pelvis, it appears as a line only and not as an open tube." The vagina does not follow and conform to the concavity of the sacrum as depicted in many of the popular cuts. The

coccyx lies above the level of the symphysis pubis when the patient is in the erect position. The vagina extends ordinarily only to about the level of the sacro-coccygeal junction. The vagina does not lie parallel with the sacrum—its line of direction, if extended posteriorly, would cut the sacrum at the third and fourth sacral articulation. It therefore bears no apparent or real relation to the sacrum in regard to position, since it comes in no respect within its limits. Its general course is practically straight; or it may be said to be bent at either extremity, giving it the form of the italic letter *S*. The relation which the direction of the vagina has with the horizontal is yet the subject of considerable dispute among prominent authors. RANNEY is inclined to give it as about 40° with the horizon. HART makes the angle 50°. Scarcely two writers agree upon this point, although the tendency with the later writers is to make it more perpendicular. The anterior and posterior walls of the vagina are normally in opposition.

The Rectum.—The rectum is situated between the vagina and the sacrum and coccyx. It does not lie in the median line of the pelvis for its whole extent—being deflected to the right as it descends. It is necessary, therefore, in studying the anatomy and topography of this organ to have this in mind in looking upon an antero-posterior median section of the pelvis. It is necessary in order to appreciate its true relation to view it as depicted in a lateral section. RANNEY says: "Most of the cuts incorporated in the works of the greater anatomists, also in those dealing exclusively with the gynecological department, represent the rectum as piercing the muscular structure of the female pelvic floor obliquely, and reaching to the skin, while the anus is usually depicted as an open tube, affording no apparent obstacle during life to the escape of its contents. It will be perceived, if the observations of others agree with

my own, that the thickness of the pelvic floor in this region is about one inch." HART states that the anal canal perforates the muscular structure which forms the pelvic floor in a direction of nearly right angles to the vaginal axis.

The lower part of the normal rectum is usually empty and collapsed. The feces are prevented from occupying this part of the bowel by the semilunar folds of the mucous coat of the rectum called the valves of Houston. These folds are situated three or four inches from the anus and form a constriction at that point. The levator-ani muscle by its anterior fibers, which pass around the outlet of the vagina, form a vaginal sphincter.

The Uterus.—We now come to that much talked about organ—the uterus. Many of the best authors writing upon this subject state emphatically that it is impossible to give, with any degree of positiveness, a normal position to the uterus. At the same time these same authors close their chapter invariably with a minute description of the normal position and state of the uterus, and bring argument upon argument to sustain these particular views. A point that is yet a subject of grave discussion is the relation that the uterus sustains to the horizontal, when the woman is in a given position. The older works on anatomy describe and picture the uterus as occupying nearly a perpendicular when the patient is in an upright position—a view which at the present time cannot find recognition for a minute. Following this, and lasting until the very present, comes the other extreme—a position of extreme anteversion and flexion. We have extremes in both directions, and one cannot but think that fashion rules even in the disposition of this important organ To my mind, after weighing the testimony of the best authors on this subject, it is impossible to come to any other conclusion than that we are safer to take neither extreme, but to be satisfied with median ground.

I do not make this statement without being, as I think, prepared to give more convincing reasons for this conclusion than a popular desire to be considered conservative.

SAPPEY maintains that the fundus of the normal uterus lies three-fourths of an inch below the plane of the pelvic brim. RANNEY's researches convince him that the fundus should be placed slightly above that plane. HART and BARBOUR say that the position of the uterus, with empty bladder and rectum, is such that it lies with its anterior surface touching the posterior aspect of the bladder—no intestines intervening; the cervix uteri looks downwards and backwards, and the uterus is slightly twisted as a whole on its long axis, so that the uterine end of the right Fallopian tube is nearer the spmphysis than that of the left. According to SCHULTZE the uterus is extremely anteverted, the axis of the uterus being nearly horizontal with patient in upright position. FREISCH says the uterus is extremely anteverted, so that the fundus is directed toward the upper margin of the symphysis; the vaginal portion lies about at the point of junction of the sacrum with the coccyx—the entire uterus lying below the pelvic inlet.

After giving thus briefly the views of these authorities it is only doing them justice to mention that they *do* recognize, withal, that the uterus *is* a very *movable organ*, and that it is found normally in many positions. They emphasize that any fixed position would be unphysiological. I will quote CHAMBERLAIN's language on this, as expressing well the general sentiment in regaad to this point. He says: "The uterus has not *a* normal position, but many normal positions. The norm of the uterus is to be very movable, the most movable of any of the pelvic or abdominal viscera. Its distinctly normal position is that toward which it returns from all its excursions, and in which it rests in the equilibrium of all dis-

turbing forces." The uterus then has not *a* normal position, but it has a point to which there is a tendency for it to return after being influenced in any way from that position. It is very necessary, however, for us as gynecologists, to know approximately where that point is, in order to correct any influence that may be exerted and acting to prevent its returning to that point.

Although we are sometimes inclined to think on account of the deplorable state of health of the great majority of our American women, that nature has not exerted herself as much as she ordinarily does to perfect the organs peculiar to them—that in this particular *at least*, she has laid herself open to criticism—although such *seems* to be the case, our better judgment soon comes in and points out to us the fact, that nature has not been neglectful to woman, but that the difficulty lies in the fact that woman is negligent toward nature. Therefore, in this branch of physiology, as in all others, we will assume that nature endeavors to do her work in the most rational manner.

It is maintained by physiologists of note that the contraction and relaxation incident to the performance of the *normal functions* of the bladder and rectum influence invariably the position of the uterus. Although the uterus is a movable organ and easily influenced in its position, we cannot bring ourselves to think that it is *so created*, this all important *organ*, simply for the accommodation of the rectum and the bladder in their *normal* actions, but, to guard it against external violence and abnormal conditions of the surrounding organs. We *are* obliged to admit *this hypothesis*, however, if we accept the extreme anteversion theory of SCHULTZE, because he represents the anterior surface of the uterus as resting upon the collapsed bladder, and with the body of the uterus in this position the cervix must obviously occupy a position of extreme flexion, or encroach upon the rectal territory.

I believe if the anatomy and physiology of the rectum and bladder are closely studied in reference to their relation to the uterus, that it will be found in their normal workings they do not disturb this organ in the least. We should remember that the uterus at the cervix is supported by the recto-uterine ligaments, or folds of peritoneum which attach it to the sacrum, and prevent an excessive downward or forward displacement of this part of the uterus; opposite this support, and acting in exactly the opposite direction, is the anterior wall of the vagina and the fold of peritoneum (verico-uterine ligaments) which prevent an *excessive upward* and *backward* movement; while the broad ligaments spreading out from either side prevent excessive movements of the uterus laterally, or undue downward displacements The uterus, too, is thoroughly surrounded by loose connective tissue, which assists in preserving its steadiness, and protects it from external influences. This connective tissue supports the uterus especially laterally, filling the spaces between the folds of the broad ligaments, passing down to the floor of the pelvis it forms a lateral supporting cushion to the vagina, which, in turn, by the assistance of the perineum, steadies and supports the uterus from below. We find then, that the uterus is very thoroughly supported without the assistance of the bladder and rectum. In looking closely at the conformation of the rectum and bladder we can readily see, too, how they can contract and relax in performing their normal functions without necessarily encroaching upon the uterus. Whether normally distended or empty they occupy about the same space, as far as influencing the uterus is concerned. The bladder collapses in a triangular shape with the long diameter in the antero-posterior direction; the rectum collapses with the long diameter in the anterior-posterior direction—each occupying at least as much space of the anterior-

posterior diameter of the pelvis when collapsed as when normally distended—and, it would require *inordinate abnormal* distention to make them occupy more of this space.

When we recognize so many wise provisions of nature in studying what is positively known in regard to the pelvis, we think that we are justified in assuming that nature has managed the doubtful points in the same wise manner. If such be the case, with our present knowledge of dynamics, we cannot refrain from pointing to the apparent incongruities in such cuts as FRITSCH'S, where extreme anteversion of the uterus is depicted, or on the other hand where the opposite version is pictured. To my mind unless one or the other of these alleged correct positions has actually and conclusively been proved to normally exist, by means of superior methods of examination, there is no rational excuse for the promulgation of such theories.

It would be expected that nature would place the uterus in a position in which it would best be enabled to sustain the weight of the super-incumbent organs and in which the jar and sudden shocks of the body could best be resisted with the woman in the ordinary upright position. But surely, such is not the case if we accept the above extreme views.

The intra-abdominal wave of pressure caused by respiration, coughing or sneezing—impulses given by sudden falls or jars, or even in ordinary locomotion, as it follows the vertical axis of the trunk, strikes first the anterior abdominal wall at a point between the umbilicus and the symphysis pubis, and is immediately deflected in a direction downward and backward into the cavity of the true pelvis. Here we come upon our first grave objection to an extreme anteversion or the opposite extreme—the perpendicular. In extreme anteversion the wave impulse would strike the posterior broad surface of the

body of the uterus, and drive it down upon the bladder and anterior wall of the vagina, while in the other position, the perpendicular, the anterior broad surface of the body would receive the impulse to an equal disadvantage, displacing the uterus backward and driving the cervix downward, while if the uterus occupied the position between these two extremes, the narrow crest of the fundus would receive the impulse in the line of the axis of the uterus and the force would become equally distributed through all of its supports. Here, too, the organ would not so directly receive the whole impulse, as it would be equally dispersed upon its sides, the posterior ligaments and anterior supports, and its lateral attachments would receive to equal extent their portion of the impulse.

Second :—The manner in which the bladder collapses, to my mind, precludes the possibility, or at least probability, of the uterus occupying normally the position of extreme anteversion. The bladder when collapsed, or when empty is a triangular shaped body—not flat like a plate. The base corresponds to its peritoneal surface, the apex corresponds to the urethra. The posterior or inferior surface corresponds to the anterior wall of the vaginia to which it is intimately attached ; the anterior wall corresponds to the symphysis to which it is loosely attached. It is readily seen, then, that the bladder distends only in the direction of the peritoneum or its one free surface. According to the extreme anteversion theorists the free surface of the bladder and the uterus are in apposition. If such be the case the uterus changes its position constantly as the bladder normally relaxes or contracts—this seems to me very improbable. I believe that this space is usually filled with the light coils of the small intestines.

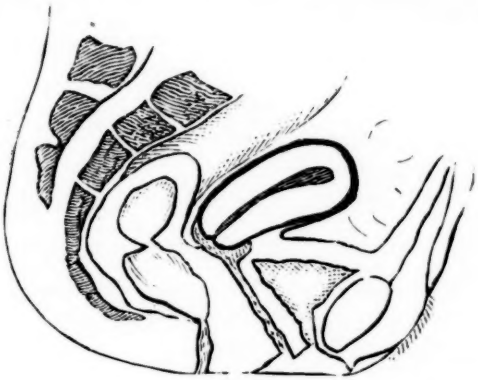
Third :—The broad ligaments receive their external attachments at a point about equidistant from the center of the

sacrum posteriorly, and the pubic junction anteriorly, in such a way as to divide the plane of brim of the true pelvis into about equal halves. If the body of the uterus occupies a position in the center of the pelvis on a direct line with the ordinary attachments of these ligaments, which it is at least rational to believe is the case, it occupies a position between the perpendicular of SAVAGE and the extreme anteversion of Fritsch.

Fourth:—With extreme anteversion, the cervix, with the fundus occupying a position behind the symphysis, would necessarily have to occupy a position far back in the pelvis, within three-fourths of an inch of the sacrum—with a normal normal conformation of parts this is impossible, without interfering with the rectum.

Fifth:—If we take the measurements of FOSTER and LITZMAN into consideration we can at once demonstrate the impracticability of the position given by Savage—the perpendicular. The cervix occupies a position normally at a distance of one and one-half inches from the sacrum, the rectum intervening. It is impossible for the uterus to assume anything like a perpendicular, with the cervix in this position, on account of the anterior curve of the sacrum above, which immediately necessitates an anterior version from the perpendicular of at least fifteen degrees.

I am justified, therefore, I think, in rejecting both the extreme anteversion theory and the perpendicular theory of the position of the uterus, and in doing so I present a schematic drawing that will be found to possess fewer theoretical objections.



Measurements used in constructing the above drawing were taken from Foster and Litzman. They are as follows:

Promontory of sacrum to upper border of symphysis	11.7 c. m.
" " " " nearest point " "	11.0 c. m.
" " " " middle of third sacral vertebra	6.9 c. m.
" " " " sacro-coccygeal joint	10.8
Sacro-coccygeal joint to tip of coccyx	3.8
Promontory of sacrum to tip of coccyx	11.6
Highest to lowest point of symphysis	3.8
Upper border of symphysis to upper border of third sacral vertebra,	13.5
Lower border of symphysis to sacro-coccygeal joint	12.5
Lower border of symphysis to tip of coccyx	9.2
Tip of coccyx to horizontal line touching lower border of symphysis	2.0
Horizontal distance of angle of sacrum from line falling vertically from promontory	7.5
Horizontal distance of sacro-coccygeal joint from line falling vertically from promontory	7.3
Horizontal of tip of coccyx from line falling vertically from promontory	4.5

Additional figures showing the relation of the pelvic organs and their proportions as depicted in above drawing:

Inclination of axis of cervix uteri with horizontal	35°
" " " " body of uterus with horizontal	25 to 30°
Vaginal inclination with horizontal	55°
Inclination of line from inferior border of symphysis to tip of coccyx	12°

Inclination of line from superior border of symphysis to promontory of sacrum	55°	
Length of vagina from posterior *cul de sac* to forchette	8	c. m.
" " uterus	7	c. m.
" " neck of uterus	2	c. m.
" " body " "	5	c. m.
Distance from sacrum to nearest point of cervix	4.5	c. m.
" " lower border of symphysis to nearest point of cervix,	6.3	c. m.
Width of cervix	2.6	c. m.
Thickness of cervix (antero-posteriorly)	2.4	c. m.
Fundus of uterus projects above a line drawn from upper border of symphysis to promontory	5	c. m.

A line drawn from upper border of symphysis to sacro-coccygeal junction touches lower border of cervix.

2139 Wabash Avenue.

EDITORIAL.

PROCEEDINGS OF THE AMERICAN MEDICAL ASSOCIATION'S AMENDED COMMITTEE RELATIVE TO THE MEETING OF THE NEXT INTERNATIONAL MEDICAL CONGRESS.

Pursuant to call, the American Medical Association's Amended Committee on the International Medical Congress met at the Palmer House, in this city, at 12:20 P. M., 24th June, 1885, with the temporary Chairman, Dr. R. BEVERLY COLE, and the temporary Secretary, Dr. JOHN V. SHOEMAKER, in their places.

During the evening session, Dr. A. Y. P. GARNETT, presented an opinion by the Honorable SAMUEL J. RANDALL, ex-Speaker of the United States House of Representatives, relative to the legal status of the committee then in session.

Mr. RANDALL'S opinion indorsed the action of the Association. In a series of able editorials, which have recently appeared in the *Journal of the American Medical Association*, the same view has been taken by the editor of the Association's action at its last annual meeting in New Orleans, as that now expressed by the legal gentleman of the House of Representatives.

The committee met again at the Palmer House on the 25th and received the report of the sub-committee in regard to the Sections into which the Internationl Congress should be divided. They recommended the decrease of the departments to sixteen, and, to accomplish this, grouped several classes of

subjects. The report was concurred in. The following were selected as Chairmen of the various classifications of subjects to be discussed: Histology, Professor Stanford E. Chaille, New Orleans; Anatomy, Professor Joseph Leidy, Philadelphia; Physiology, Professor J. C. Dalton, New York; Pathology, Professor Francis Delafied, New York; Practical Medicine, Professor J. M. Da Costa, Philadelphia; Surgery, Professor D. W. Yandell, Louisville; Gynecology, Dr. Robert Battey, Rome, Ga.; Ophthalmology, Professor E. Williams, Cincinnati; Otology, Professor C. J. Blake, Boston; Dermatology, Professor W. O. Hardoway, St. Louis; Laryngology, Professor J. M. McKenzie, Baltimore; Public and International Hygiene, Professor H. A. Johnson, Chicago; Collective Investigation, Nomenclature, Vital Statistics, and Climatology, Professor N. S. Davis, Chicago; Military and Naval Surgery and Medicine, Dr. David L. Huntington, U. S. A.; Practical and Experimental Therapeutics, Professor H. C. Wood, Philadelphia; Diseases of Children Professor J. Lewis Smith, New York. The committee adjourned to meet in St. Louis the first Monday in May, 1866, the day before the annual meeting of the Medical Association. The International Congress will occur in Washington in 1887. The date is not yet fixed, but will probably be some time in August.

It is in the interest of the medical profession of our whole country, and its good name, that selfishness and efforts at personal or partisan advancement should be subordinated, in the work of the Members of the Committee of Arrangements, to the importance of making a success of the next Congress. Their selection by the American Medical Association for this position of trust is no mean honor, but the responsibilities which attach to the position should be appreciated as well,

and their course of action should be such as to give undoubted evidence that they realize that fact. No unworthy motive should be allowed to influence the course of any individual member of the committee with any other view than the success of the Congress.

A formal invitation from the medical profession of the United States, by its representatives in the American Medical Association, was extended, through a duly appointed committee of that Association, to the members of the last Congress which met in Copenhagen, to hold the next Congress in the United States. That invitation was accepted. The foreign members of the next Congress will, in their attendance, be in some sense the guests of the medical profession of the United States. The good of the cause, for which the Congress will assemble, should be the governing aim of the committee having charge of the arrangements for it, but this high motive is supplemented by an obligation of hospitality, in addition.

The physicians who will come from foreign countries will neither understand nor sympathize with either side in differences of opinion held by factions in the United States, upon questions of ethics, and still less would they respect any acts of the profession, or of its committee, which might be prompted by selfish or partisan feeling that would conflict with the philanthropic and scientific aim of the Congress.

The character of a large portion of the committee is such that it should be a sufficient guarantee that no unworthy motive would be allowed to characterize the action of the committee as a whole, and that the officers selected shall be representative men, and that the sections formed, to supplement the work of the general sessions of the congress, shall be such as are best suited to advance the cause of scientific medicine.

The medical profession of the United States demands of its representatives—the Committee of Arrangements—that, by no act of theirs, shall the success of the Congress be interfered with nor the good name of the medical profession of our country be made to suffer at their hands, and it looks, hopefully, for just and honorable treatment of the important trust confided to that committee.

INOCULATION FOR CHOLERA AND YELLOW FEVER.

Telegraphic despatches to the daily papers announce brilliant results from the inoculation experiments of DR. FERRAN, of Valencia, Spain. It is stated that over six thousand persons have been inoculated with cholera microbes, as a prophylactic, in the province of Valencia.

A despatch, dated, Soudan, 29th June, contains the following words :

"The Spanish Admiralty authorities have ordered the cholera vaccination system of Dr. Ferran to be applied to all the officers and men of the Royal Navy."

Professor H. C. Wood makes the following terse comment upon the subject in the *Therapeutic Gazette*, 15th of June, 1885.

"While the system is said to be entirely successful, we cannot see on what grounds that statement is based, as it is far too early in the season to judge of the severity of an epidemic, and no proof can yet be offered as to the immunity of the inoculated individuals from cholera. Before we can indulge our enthusiasm we must demand many further details."

DR. CARMONA is experimenting in inoculation with yellow fever germs in Mexico. Subjects are not wanting, but the experiments are apparently not so successful as those of Dr. Ferran.

"The germ in Mexico and in yellow-fever does not prove as tractable as in Spain and in cholera."

ATHEROMA OF THE CORONARY ARTERIES AND ITS RELATIONS TO CERTAIN CASES OF CARDIAC FAILURE.

At the annual meeting of the Minnesota State Medical Society, held in St. Paul, June Eighteenth and Nineteenth, DR. ROBERT H. BABCOCK, of Chicago, addressed the members upon ATHEROMA OF THE CORONARY ARTERIES AND ITS RELATION TO CERTAIN CASES OF CARDIAC FAILURE. As the subject is an interesting one, we give an abstract of DR. BABCOCK'S remarks.

He disclaimed any expectation of presenting original or novel ideas, hoping only to call attention to a subject which appeared to him to possess great practical interest, yet was apt to be overlooked by the general practitioner in the press of more obvious matters. It was the subject of heart weakness (heart decay) in persons past middle age, in consequence of degeneration of the cardiac muscle resulting from atheroma of the coronary or nutrient arteries of the heart. The picture is a common one, though presented under varying aspects. The speaker then described briefly three classes or types of cases, which he considered illustrative of the disease. First, a strong man of about sixty years of age, complains of gradual loss of strength for a few months past and of slight breathlessness on exertion, possibly also of vague pain in the region of the heart: that is all. He has never been seriously ill and the physician fails to discover anything that proves satisfactory or that definitely implicates the heart. The pulse exhibits no marked deviation from normal and the cardiac impulse is in its right position, only perhaps a trifle weak. The heart sounds are free from murmur, the first being perhaps slightly less booming than natural and the second somewhat more pronounced. At a loss for more satisfactory explanation of his patient's condition, the physician

says he is only a little overworked, prescribes rest and tonics, and thinks he will improve. To his great surprise the man a few months subsequently falls unconscious and with deeply congested face and neck quickly expires; or perhaps in an unusually severe attack of angina pectoris his heart ceases to beat. It is pronounced cerebral or pulmonary apoplexy. It is however sudden cardiac failure.

In another class of cases, the physician is called to see a man past middle age, who upon unusual exertion was seized with great dyspnœa and is now panting for breath. The heart's action is feeble, pulse somewhat irregular, and there is more or less bronchitis; praecordial dullness may or may not be increased. The man has evidently over-exerted himself and is now suffering with asthma, the doctor thinks. A hopeful view of his case is entertained and remedies are prescribed. But, instead of improving, the patient goes on from bad to worse, and finally after months of distress from dyspnœa, dropsy, angina, etc., death mercifully terminates the struggle.

The third class is exemplified by a person of advanced age who has for years been unequal to much exertion by reason of weakness, breathlessness, vague, substernal pain and dizziness. The phyician has no great difficulty in recognizing heart weakness, but attributes it to a general decay of vitality and and impaired digestion.

The real explanation of these and similar cases, DR. BABCOCK thought to be degeneration of the heart muscle due to atheroma or sclerosis of the coronary arteries. He then briefly described the pathology of atheroma and enumerated its causes as recognized by English and German observers, the chief being cardio-vascular strain and old age. This arterial degeneration is observed to affect most frequently the aorta and its large branches, the cerebral, coronary and splenic

arteries and those of the extremities. It is not unusual to discover after death, atheroma of the aorta and coronary arteries when it had not invaded the peripheral vessel sufficiently to have been recognized during life. The changes in the walls of the heart have been recently described by PROFESSOR LEYDEN. of Berlin, and the speaker derived what he had to say on this part of his subject from LEYDENS's admirable paper. In the first group, LEYDEN places those cases where the atheromatous process has not been marked and the heart has materially suffered. In the second, there are discovered areas of acute softening due to thrombi or hemorrhagic infarcts. This condition often leads to rupture of the heart. Thirdly, there are areas of fibroid degeneration in the walls of the ventricles, particularly at the apex. In consequence of the thinning produced, aneurism (of the heart) not infrequently results. In the fourth group, there is a combination of the second and third. The clinical history of these cases is different, being either acute, subacute or chronic. LEYDEN considers this degenerative occlusion of the coronary arteries as the most frequent cause of angina pectoris.

DR. BABCOCK next spoke of the diagnosis. He regards it as not always easy or definite, particularly if the radial or other peripheral arteries be not discovered as atheromatous by the touch. Yet, a careful consideration of the history, symptoms and character of the heart sounds will often lead to a correct diagnosis. If the first sound over the left ventricle be more or less toneless in contrast to the second, which particlarly in the aortic area, is sharp and ringing, and if the impulse be feeble and diffused, there is good reason to suspect degenerative change in the walls of the heart, although praecordial dullness can not be found increased.

DR. BABCOCK thought the treatment suggested itself, since

it is highly rational. It consists pre-eminently of rest and every means available for improvement in the nutrition of the heart. Arsenic and strychnia are admirable heart tonics, and the former, if pushed to a point just short of producing its physiological effects, is often found to lessen the frequency and severity of the angina. As remedies efficient for the relief of the pain during the attack the speaker recommended nitrite of amyl and a one per cent. solution of nitro-glycerine. Digitalis is invaluable for the purpose of slowing, steadying and strengthening the heart's action when dilation has gained the ascendency and the pulse is irregular and rapid. In carrying off dropsy due to cardiac failure digitalis combined with squills is most effective. The doctor also discussed other remedies, as well as dwelt upon the those mentioned at greater length than has been done in this article.

Unfortunately the society did not participate in any formal discussion of the address.

SOCIETY REPORTS.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, June 15, 1885.—The President, Professor C. T. PARKES, M. D., in the chair.

A Successful Case of Nephrectomy.—Dr. R. G. BOGUE reported an important case of nephrectomy. The patient was a woman, aged thirty-six, single, who had suffered from several attacks of acute rheumatism with cordiac complications, and also for nearly one year with a pus-discharging sore on one arm. About six years ago, while doing laundry work, she severely sprained her back, and this was followed by frequent and painful urination, the urine containing pus, blood and mucus. The pain in the back increased during menstruation. These symptoms continued until 1882, when a swelling, accompaned by pain and soreness, appeared in the right lumbar region. This swelling was finally opened and gave exit to a large quantity of pus, and remaining open, continued to discharge pus until the time of the operation; pus, blood and mucus at the same time appeared in the urine, which was voided with difficulty. At one time there was so much clotted blood in the bladder that it was only dislodged by breaking up the clot with a catheter and washing out the bladder. Later there was nearly a closure of the opening into the lumbar abscess, and a fluctuating tumor appeared near the old one, which was opened, and gave exit to a quantity of fœtid pus. From May 13 to August 27, 1884, there was free discharge

of pus through the lumbar openings and the bladder. At no time was there a urinous odor to the discharge from the loin. Whenever the discharge from the loin was greater, pus appeared in less quantity in the urine, and vice versa.

In the belief that there was an abscess of the right kidney, on August 27, 1884, Dr. Bogue made an explanatory operation by making an opening into the loin, along the course of and just below the twelfth rib, including in its track the sinus. He came upon a dark, fluctuating mass, which upon puncture discharged a quantity of pus, and on further examination was found to be the capsule of the kidney, divided into compartments, and distended with pus. The sac was adherent to the surrounding tissues, and, upon separation, bled freely. The adhesions were quickly broken up and a stout ligature placed around the attachment or peduncle, which consisted of the ureter and renal blood-vessels. This was done by the aid of a large bent probe armed with silk. This ligature completely arrested the hemorrhage. Near this ligature the peduncle was transfixed by a double thread of strong silk and tied in two parts, the mass cut away, with ligatures left long and with drainage tube, that served to drain the cavity, which was cleansed with a carbolated solution and the wound dressed with oiled-silk, gauze and oakum. The patient convalesced rapidly with the exception of an attack of rheumatism and one rather free discharge of blood from the bladder, which followed traction on the ligatures. The ligatures did not separate until Dec. 7. But little pus came with the urine after the operation. There is yet a small fistulous opening in the track of the wound. The patient is now comparatively well. The mass removed was a distended kidney capsule with calices so distended that there was obliteration of the kidney tissue except at one point where there was enough to identify the structure.

Professor C. T. PARKES remarked that an interesting point in the report is that in which is described the method by which hemorrhage was arrested, as the greatest danger in this operation is from hemorrhage. Czernay had a case in which the hemorrhage was so severe that he ligated the aorta. Operations on the kidney are becoming quite frequent. In an interesting paper Dr. Gross gives his observations of over two hundred cases, and limits the cases in which an operation is suitable. Professor Parkes said that he wished to call the attention of the Society to the fact that there is sometimes an anomalous distribution of the arteries to the kidneys. He had met two cases in which the arteries entered the kidney at the lower end instead of at the hilus, and this should be remembered in cases of nephrectomy and especially nephrolithotomy. Sometimes the renal artery enters the kidney by two branches.

In answer to several questions by members of the society, Dr. Bogue replied that no vertical incision was necessary; that the diagnosis was positive only after the operation, which was an exploratory one; that the ureter and renal blood-vessels were ligated in mass, and that in a suspected case, where there was a well-defined, movable tumor in the abdomen, unaccompanied by pain, with pus in the urine, and difficult urination, which was relieved by washing out the bladder, if there was a reasonable probability that it was a suppurating kidney, he would advise an operation.

The Continuous Curve Forceps.—Dr. E. W. SAWYER read an interesting aud exhaustive paper on the Continued Pelvic Curve in the Obstetric Forceps, with remarks on forceps in general. He defined the perfect obstetric forceps to be an instrument with which it is practically impossible to injure the mother or fœtus, when skillfully used. In order that the forceps may be such a harmless extractor, after many years of observation and experi-

ence he had arrived at the following conclusions: First, that there should be a space of three and one-fourth inches between the compressing surfaces of the blades, when the inner surfaces of the handles are in contact. Any less space will fatally compress the fœtal head. The long diameter of the ellipse, bounded by the conjoined grasping curves of the blades, should be five and one-half inches, the distal opening of this ellipse, to correspond to the separation between the tips of the blades, may be three-fourths of an inch; five and one-half inches from the blade tips, the opening should be two and one-half inches. If these measurements are less, severe injury may result to the fœtus. Second, in selecting an instrument, a straight-edged ruler should be placed at right angles to the long diameter of the blade, to determine if the center edge of the blade and the border of the fenestra are on the same plane, if not, such an instrument invariably injures the fœtal scalp. Third, the loose mortise joint lock, which allows a backward and forward motion of the handles, and thus enables the obstetrician to properly adjust the forceps to the fœtal head, is the only safe, simple and easily operated lock. Fourth, in compressing the fœtal head the closest imitation of nature is safest method to follow, hence a moment of compression during a pain should be followed by loosening the grasp of the head, which cannot be done with those instruments which permit the handles to be fixed together. Fifth, the length of the handles should be such as to allow the operator to reserve his force for difficult traction. The rounded space just in front of the lock, which admits of the introduction of a finger, is of special value as a point of traction when a great degree of compression is not demanded. Sixth, the blades of the instrument should be of the best steel, at least one-fourth of an inch square, at the shanks, and gradually thinned to about three thirty-seconds

of an inch at the tips. Slighter material is so yielding as to permit the blades to be pulled off the head. Seventh, if an index be fixed to the fœtal head, as, for example, the handles of a forceps, in such a manner as to follow the direction given to the head by the unaided efforts of nature, an irregularly curved line would be described forward and upward, which would have its termination, at the moment of the escape of the head, at a point near the umbilicus of the woman. This curved line should be the guiding line to the attendant, who attempts to reinforce the expulsive force of the uterus with the forceps. Dr. Sawyer then exhibited a forceps of his own invention, in which the pelvic curve is extended to the ends of the handles, to guide the operator in producing traction in the direction of the curved line above mentioned. He claimed that in those cases where the occiput, or sinciput, presents posterior, and it is decided to deliver in this position, this curve will allow the operator to grasp the head with the forceps well forward over the ears, without its slipping over the occipital poles.

In answer to several objections as to the feasibility of securing a perfect forceps, Dr. Sawyer stated that he did not claim his forceps to be perfect, but that he had copied the best features of other forceps, and thinks he has an instrument which will do less injury to the mother or child than any other forceps with which he is acquainted. He believes it to be absolutely safe for the child, and was not intending to speak of the indications for using forceps, or the manner of their use, but that he had endeavored to incorporate in his paper some points about forceps in general, which he had never read or heard taught, and he hoped they would be useful to all who wished to approximate as nearly as possible the ideal forceps.

CHICAGO MEDICAL SOCIETY.

Stated Meeting, July 6, 1885.—The First Vice-President, C. W. PURDY, M. D., in the chair.

DR. ROBERT TILLEY exhibited to the society microscopical specimens of the fungus, aspergillus glaucus, taken from the human ear, an osteoma developed from the crusta petrosa of a canine tooth, and filaments, or mycelia, from the body of a tonsil.

While exhibiting the specimens, DR. TILLEY spoke as follows:

In describing to you the three specimens which are exhibited under the microscope, I will refer in the first place to the fungus—aspergillus glaucus—taken from the human ear. I have had this in my possession for about three years and have shown it to several of my acquaintances, but did not deem it of sufficient interest to exhibit it before. It is however an object which many have not seen before, although it is mentioned in every text-book on the subject I have no intention whatever of entering into the question of the aspergilli in general relative to their influence when found in the ear. But I must say that my experience relative to the question leads me to think that its influence as a source of pain in the external ear is greatly exaggerated in the books. This specimen was taken from the posterior wall of the meatus of a little girl who had for sometime previously been afflicted with otorrhœa. The otorrhœa had however ceased and the fungi were readily recognized in lusty growth immediately on looking into the ear. There was however no pain complained of, the patient was brought rather for inspection than for the expectation of relief. You will observe that the fungi are growing on what by simple inspection might be called dried but otherwise normal wax. You will notice that the fungus consists of one straight

long stem surmounted by a round ball, very much like the top of an onion which has run to seed. It is commonly said, I think rather on theory than on observation, that they are caused by sleeping in low, damp apartments. The child from whom this was taken belonged to people in good circumstances and was well taken care of and was not living in damp quarters.

The next specimen, to which I will now refer, is the osteoma developed from the cementum or crusta petrosa of a canine tooth. I am very sorry that I cannot give you anything of the clinical history, because I believe it would be interesting, if known. In consequence of this, it is perhaps necessary that I should give a word of explanation as to how it came into my hands:—A friend was speaking to me of some one who had been subjected to the operation of drilling through the fangs of six teeth on account of what was called "ossification of the nerve." In speaking to one of my acquaintances among the dentists about such a condition, I was presented with a tooth a section of which I exhibit to you. You will see, both macroscopically as well as microscopically, that the line of demarcation is well defined. You will further see that the general appearance of the tumor is that of bone, and that it differs greatly from the general appearance of the tooth proper. It is interesting to observe moreover that the canal, through which the nerve and vessels enter, is greatly diminished in its course through the tumor, consequently great pressure must have been exerted on the nerve. Before making the section, I had supposed that the canal was completely obliterated, so small is its opening at the end of the tumor. On looking at the specimen through the microscope, you will see very clearly that while the line of demarcation between the dentine and the proliferation of the crusta petrosa is well marked, and the lacunæ and canaliculæ of the bony structure of the tumor are well de-

monstrated, there is also a number of contorted tubules in the bony tumor which resemble, somewhat, the dental tubules. Haversian canals are of course not present, they never are in such growths. Although I have no clinical history to present, I may add that the usual clinical history is one of severe pain, which nothing but extraction seems capable of relieving.

The last specimen is one which I obtained from one of those little pockets which are often found in the tonsils. They seem to come and go, sometimes without giving any more inconvenience than a little discomfort. They are frequently associated with fœtid breath, and in some cases the masses themselves are very offensive, in odor. In the present case, however, this was not so, there was no fœtor. There was, however, an unpleasant sensation amounting to a positive discomfort running down the neck externally, in the direction of the sterno-cleido-mastoid muscle. On pressure around the base, the little mass popped out, suddenly, so that it came near going down the patients throat. In examining it, under the microscope, it proved to be one mass of filaments, very fine and containing spores in the body of the filaments, and associated with fat crystals.

I succeeded in staining them with methyl violet, but only after first extracting the fat with ether.

I have no theory to present, gentlemen, I simply exhibit to you what has been interesting to me. After the removal of the small mass I did not think any treatment was necessary, but as there was a little bridge of tissue more or less dividing the cavity into two sections, I divided the bridge with the electro-cautery.

The Treatment of Acute Coryza, was the subject of a paper by DR. J. A. ROBINSON. He said the literature on the subject of the treatment of acute coryza is scanty and of a stereotyped

nature. The profession seems to have arrived at two conclusions, first, that it is not a disease of sufficient severity and importance to command especial attention; second, that no plan of abortive or curative treatment has been sufficiently successful to cause them to investigate the subject further. However, in view of the fact that repeated attacks of acute coryza undoubtedly have a causal relation to pathological changes in the nares which it is difficult to remove, and that we are so frequently consulted by public speakers and singers who beseech us to abort or rapidly cure such acute attacks, it certainly deserves more than a passing notice.

The time-honored plan of aborting an acute coryza by the administration of a full dose of opium, an active purge and a potent diaphoretic has proven more disagreeable than efficacious. The plan, advocated by Dr. Ferrier, of blowing into the anterior nares a powder composed of morphia, bismuth and acacia, has been quite satisfactory in a few instances, but it is not free from the objection that, when successful, it often produces an unpleasant nausea. Its success is undoubtedly due to the sedative and astringent effect upon the inflamed mucous membrane.

What are the pathological conditions in the first stage of acute coryza? Briefly, there is dilatation of the capillary vessels, the arterioles being dilated and the venules engorged, inducing tumefaction of the mucuous membrane. This is accompanied by dryness and pain. Secretion is abolished. In reflecting upon these circumstance the thought naturally arises, whether, if we can employ such measures or drugs as will antagonize these abnormal states, we will succeed in aborting the disease. We have recently had added to our armamentarium a drug which more completely antagonizes in its physiological actions these pathological conditions than any other. It is the hydrochlorate of cocaine.

Its physiological actions have been demonstrated to be concisely as follows: when applied to a mucous membrane it is a potent although transient anæsthetic, a vaso-motor constrictor causing contraction of the arterioles and depletion of the venules, thus rapidly emptying congested tissues of a surplus of blood. This drug is also an astringent and has the property of lessening the secretion of muciparous glands. On studying the relation between the state of the nasal mucous membrane in the first stage of acute inflammation and after an application of cocaine, the theory was formulated that cocaine should prove useful in aborting acute coryza, and it was determined to try it on the first opportunity.

The details of the first experiment are as follows:

Miss S———, a soprano singer in one of our city churches, applied to me on the morning of February 22nd, and desired immediate relief from a "cold in the head." She complained that the previous night she had been exposed to a draft and awoke that morning with the cold, as evidenced by the fact that she could not breath through the nose, and that her nose felt dry and painful, and she had lost the sense of smell. Inasmuch as she had to sing that night at a special service, she must have immediate relief.

Upon examination I found all the conditions incident to the incipiency of an acute coryza. Her temperature was 102° F. with some acceleration of the pulse.

Febrifuges and a mild diaphoretic were prescribed. A local application of a four per cent. solution of hydrochlorate of cocaine was applied, as thoroughly as possible, to the congested mucous membrane, and the parts were sprayed, also, for some time with a warm alkaline spray, hoping thereby to reduce the hyperæmia. After having made another application of the cocaine, the patient was instructed to return home and

follow the same line of treatment and to return the following day. She did not return until three days later, when she reported, to my surprise and gratification, that she had been able to sing as desired, and that no symptoms of the disease had returned.

The success which attended this new departure, induced me to try it in other cases of acute coryza which were seen early, and it has almost always been successful. Of course, the number of cases which we see in their forming stage are few, on account of the fact that the patients do not seek medical advice for this affection until the disease is well advanced.

In the use of cocaine for the purpose of aborting an acute coryza there are some objections: it has to be applied often in order to maintain its action on the inflamed mucous membrane, and it is an expensive drug. I have found that the use of a warm alkaline spray serves to prolong the sedative action of the cocaine.

Of course dependence is not to be placed on local measures alone, but in addition proper attention is to be given to constitutional and hygenic treatment.

Dr. Tilley said he had used the hydrochlorate of cocaine in two or three cases of acute coryza with much satisfaction. According to one patient, an attack had ended with a single application. While he did not look upon cocaine as a sure cure for acute coryza, he thought it almost always did good. He referred to a serious accident which occured to one of his patients during the use of cocaine. The patient was a boy aged twelve years, in whose nose a little cocaine had been used. After the first application he suffered a little nausea, which was not regarded as serious; after the second application the nausea was worse, but it was not until a third application had been made that the symptoms became alarming. These symptoms

were difficulty of breathing, syncope, irregular action of the heart, cold perspiration and loss of sensation in the extremities. Notwithstanding these symptoms were alarming, the boy recovered quite rapidly. He had noticed reports of cases in the journals where the same symptoms had appeared.

Dr. Weller said that he had had a good deal of experience in the use of coca, especially in the form of the fluid extract. He had taken large doses, in his own case he had used two pounds in a short time. Formerly he had considered it as harmless as tea, but latterly he had arrived at the conclusion that it is a powerful narcotic. The strange phenomena which follow use of cocaine in some cases, he believes to be due to the narcotic action of the drug, and that they would not appear if the drug was not given in large doses. He believed some patients to be peculiarly susceptible to the action of coca or cocaine, similar to the idiosyncrasies of patients in the use of belladonna, opium and alcohol. In the case mentioned, he believed the symptoms to have been the result of an over dose of cocaine. In his experience, he had found a two per cent. solution of cocaine strong enough, and urged the tentative use of the drug in the same manner as in the use of morphia.

Dr. WEBSTER did not wish to be considered skeptical, but he had some doubt as to the alarming symptoms in the cases mentioned having been due to the drug. Is it not possible they were the result of reflex processes in over-sensitive patients? He had a patient recently who vomited after holding a fever thermometer under her tongue.

Dr. PAOLI believed that the old treatment of acute coryza by giving the patient a hot bath, muriate of ammonia internally, and inhalations of camphor in hot water, or the oil of eucalpytus, combined with borax, to be the best, although he would acknowledge that cocaine would often relieve severe attacks in a short time.

Dr. S. J. JONES asked the author of the paper if he had used cocaine with a steam atomizer in acute pharyngitis, tonsillitis and laryngitis; also, if the applications of cocaine to different patients were from the same solutions and at brief intervals, so as to be able to state how a reliable solution acted on different patients.

Dr. Robison, in closing the discussion, said he did not advocate the plan of treatment as infallible or free from objections, nor did he neglect to use other means of cure if he thought they were advisable. As to the effect of cocaine on certain patients, he had a similar experience to Dr. Tilley in the case of a woman who had twice been operated on without cocaine for nasal polyps. No unfavorable symptoms occurred during these operations. At the third and fourth operations, cocaine was used and the patient was troubled with nausea, vomiting, palpitation of the heart and syncope. As no cocaine had been used in the first two operations, these symptoms in the third and fourth operations seemed to be, undoubtedly, due to an idiosyncrasy of the patient. He had not used cocaine with the steam atomizer, but he thought it feasible, if the drug were not so expensive. He prepares fresh solutions for each patient so as to preclude all possibility of failure of action by reason of deterioration of the solution by age. He had found the same package of cocaine to vary in its local and constitutional effect on different patients, affecting some more rapidly and profoundly than others.

Society then adjourned.

TRANSACTIONS OF THE CHICAGO GYNECOLOGICAL SOCIETY.

I. MARTIN. The Normal Position of the Uterus and its Relation to the Other Pelvic Organs.

Friday evening, 29th May, 1885. Regular Meeting.

The Society was called to order by the PRESIDENT. Dr. H. P. MERRIMAN.

I. An inaugural thesis, entitled, THE NORMAL POSITION OF THE UTERUS AND ITS RELATION TO THE OTHER PELVIC ORGANS, was presented by FRANLIN H. MARTIN, M. D., (Chicago Medical College, 1880), and read by the SECRETARY, Dr. EDWARD WARREN SAWYER.

The extreme theories of Schultze, Fritsch and Savage were opposed for the following reasons:

1. In extreme anteversion, the wave impulse would strike the posterior broad surface of the body of the uterus, and drive it down upon the bladder and anterior wall of the vagina, while, on the other hand, (the perpendicular theory of Savage), the anterior broad surface of the body would receive the impulse to an equal disadvantage, displacing the uterus backward and driving the cervix downward, while if the uterus occupied the position between these two extremes, the narrow crest of the fundus would receive the impulse in the line of the axis of the uterus and all the force would become equally distributed through all of its supports. Here, too, the organ would not so directly receive the whole impulse, as it would be equally dispersed upon its sides and the posterior ligaments and anterior supports, and its lateral attachments would receive, to an equal extent, their portion of the impulse.

2. The manner in which the bladder collapses, to our mind, precludes the possibility, or at least the probability of the uterus occupying normally the position of extreme anteversion. The bladder, when collapsed, or when empty, is a triangular

shaped body,—not flat like a plate. The base corresponding to its peritoneal surface, the apex corresponding to the urethra. The posterior or inferior surface corresponds to the anterior wall of the vagina, to which it is intimately attached; the anterior wall corresponds to the symphysis, to which it is loosely attached. It is readily seen, then, that the bladder distends only in the direction of the peritoneum, or its one free surface. According to the extreme anteversion theorists, the free surface of the bladder and the uterus are in apposition. If such be the case, the uterus changes its position constantly, as the bladder normally relaxes or contracts,—this seems to us very improbable. We believe that this space is usually filled with the light coils of the small intestines.

3. The broad ligaments receive their external attachments at a point about equidistant from the center of the sacrum posteriorly, and the pubic junction anteriorly, in such a way as to divide the plane of the brim of the true pelvis into about equal halves. If the body of the uterus occupies a position in the center of the pelvis on a direct line with the ordinary attachments of these ligaments, which it is at least rational to believe is the case, it occupies a position between the perpendicular of SAVAGE, and the extreme anteversion of FRITSCH.

4. With extreme anteversion, the cervix, with the fundus occupying a position behind the symphysis would necessarily have to occupy a position far back in the pelvis, within three-fourths of one inch of the sacrum,—with a normal confirmation of parts, this is impossible without interfering with the rectum.

5. If we take the measurements of FOSTER and LITZMANN into consideration, we can at once demonstate the impracticability of the position given by SAVAGE,—*i. e.*, the perpendicular. The cervix occupies a position, normally at a distance of one

and one-half inches from the sacrum, the rectum intervening. It is impossible for the uterus to assume anything like a perpendicular with the cervix in this position, on account of the anterior curve of the sacrum above, which necessitates an anterior version from the perpendicular of at least fifteen degrees.

DISCUSSION.

PROFESSOR W. W. JAGGARD was pleased with the selection of the topic, and its mode of treatment, but did not agree with Dr. MARTIN in all his conclusions.

BANDL had made a correct statement of the diversity of opinion upon this subject, in his essay on "*The Normal Position and the Normal Relationship of the Uterus, and the Pathologico-Anatomical Causes of the Symptom of Anteflexion.*" (*Archiv für Gynækologie, Band, XXVI. Heft, 3, 1884,*) read before the GYNECOLOGICAL SECTION of the *Versammlung deutscher Natur forscher und Ærzte* in Freiburg, September, 1883.

"In the course of time, almost every position of the uterus, with the exception of prolapse, has been accepted as the normal by different anatomists and gynecologists, and particularly by the more eminent ones."

KÖLLKER (1882), from a series of examinations of the cadavers of girls, from ten to eighteen years old, has concluded that the uterus is not bent, nor curved upon itself, but is straight, and that its long axis corresponds with the principal axis of the small pelvis. Its position is variable within certain limits, depending upon the condition of the bladder and rectum. This opinion coincides closely with judgments of KOHLRAUSCH (1854), LE GENDRE, (1868), FREUND, CARL BRAUN, (1857), J. MARION SIMS, (1855), LANGER, (1881). PROFESSOR PAUL F. MUNDE, in his recent excellent work on "Minor Surgical Gynecology," favors these views to the extent, that he says, "with the woman in the recumbent position, the examining finger is

unable to touch the body of the uterus before or behind the cervix, if the uterus is normally situated."

BANDL, in the paper, to which allusion was made, confirms KÖLLIKER'S view. The evidence he furnishes is of a high order. His methods of investigation were:

1. The attentive examination of living women.

2. Examination and observation before and during the operation of laparotomy.

3. The bi-manual examination of the organ in cadavers, before and after abdominal section.

4. The comparative anatomical examination of many *uteri.*

Dr. PHILIP ADOLPHUS thought, with EMMET, that "there is no common standard by which to determine the proper position for the uterus in all women, but that in each individual there is a point, or plane, in the pelvis which the uterus should occupy when she is in a state of health and not pregnant." He referred in detail to EMMET'S "normal or health line," and to the pathological character of displacements above or below this line. It was a matter of relative insignificance whether or no the long axis of the uterus coincided with any particular pelvic axis.

In the concrete case, the sensations of the individual would indicate a normal or abnormal position.

PROFESSOR DANIEL T. NELSON said the uterus was fixed in a position of unstable equilibrium by the annular and other ligaments. It could move to a certain degree in every direction, and return to its original, normal position. Displacement above or below EMMET'S "health line" was productive of symptoms, if the uterus remained fixed in such a position, as was usually the case when violence caused the dislocation. Departure from the principal axis of the pelvis was a comparatively insignificant moment, viewed absolutely. The vagina

and perineum are not primary supports of the uterus, and only assume this function, when, as the result of the relaxation of the proper uterine supports, the organ is displaced downwards. This secondary character of the vaginal and perineal support was capable of demonstration by the examination of a woman in the erect attitude. Upon coughing or sneezing the uterus would descend and receive support from vagina and perineum, only to regain its original position when the excitant was removed. This remark applied exclusively to normal organs in normal position.

He wished to emphasize the statement that the rectum was not the normal receptacle for the faeces. Anatomy and physiology teach that in the normal condition the gut is empty up to the sigmoid flexure. The sigmoid flexure is a sort of valve to retain fæces.

He narrated the history of a case of retention of urine in a puerperal woman, in which the bladder was displaced towards the left iliac fossa, while the uterus was directed towards the right. He would like to ask the Fellows if this displacement, observed in a single case, corresponded with their observations.

PROFESSOR CHARLES WARRINGTON EARLE related the history of a case of retention of urine in a puerperal woman, the bladder displacing the uterus upwards and backwards. Upon the introduction of a catheter, four quarts of urine were evacuated and the pelvic viscera returned to their normal relations.

Dr. EDWARD WARREN SAWYER said the uterus had great latitude of movement antero-posteriorly and laterally; elevation above or depression below the normal plane, even to a slight degree, was productive of pain. The introduction of a pessary, which merely elevated the uterus when partially prolapsed, without altering flexion, was sufficient in many cases to afford complete relief.

While a student in the Medical Department of Harvard University, he had taken plaster casts of the vagina. Such casts were of uniform shape, while they differed in size. They were curved, convex posteriorly, concave anteriorly. They were never shaped like an S. The curve did not correspond to that of the anterior surface of the sacrum, but to the floor of the pelvis.

Dr. H. T. BYFORD thought DR. SAWYER'S experiments were faulty. When plaster of Paris was injected into the vagina, with the rectum empty, the vagina would act exactly as the rectum would under similar conditions.

THE PRESIDENT, Dr. H. P. MERRIMAN complimented the author of the paper on the careful, judicial mode of treatment of his difficult subject.

He agreed with DR. ADOLPHUS, DR. NELSON, DR. SAWYER that elevation above or depression below a certain horizontal plane was of greater importance, in the production of symptoms, than deviation from the principal pelvic axis antero-posteriorly or laterally.

The normal position of the uterus was as variable as the quantity of blood lost at a menstruation. Every woman was a law unto herself. He referred in detail to ROBERT BARNES'S theory of uterine support, and concluded by recommending BOZEMANN'S plan of columning the vagina, when a hard rubber pessary could not be borne.

PROFESSOR CHRISTIAN FENGER, M. D. (Copenhagen, 1867), and FRANKLIN H. MARTIN, M. D. (Chicago Medical College, 1880), were then elected Fellows of the Society.

W. W. JAGGARD, M. D., *Editor.*

2330 Indiana Ave., May 29, 1885.

MICHIGAN STATE MEDICAL SOCIETY.

THE TWENTIETH ANNUAL MEETING OF THE MICHIGAN STATE MEDICAL SOCIETY occurred at Port Huron, beginning on Wednesday, June 10th, at 10:30 A. M.

The President, PROFESSOR DONALD MCLEAN, of Detroit, called the meeting to order, and prayer was offered by REV. HASTINGS BLISS, of Port Huron.

GENERAL HARTSUFF, of Port Huron, made a brief address of welcome.

Many prominent medical gentlemen from abroad were invited to seats upon the platform.

The Executive Committee made their annual report, which was discussed and approved.

The programme was so very full that those who had papers to read were requested to make them as short as possible, that all might be heard.

Dr. O. B. Campbell, of Ovid, read an interesting paper on "Migraine," which was discussed by Dr. Smart, of Hudson.

Dr. Woodworth, of Tecumseh, read a paper entitled "Treatment of Fracture." Dr. De Camp, of Grand Rapids, led in the discussion, which was interesting and spirited.

Dr. Ramsey reported that he had received a congratulatory telegram from the Maine Medical Society, which was then in session. The telegram was read, and a similar dispatch returned.

Dr. Hugh McCan, of Lapeer, read a paper on "Plaster of Paris in the Treatment of Fracture."

Dr. H. O. Walker, of Detroit, read a paper of great interest on "External Perineal Urethrotomy," which was discussed by Dr. Kimball, of Jackson.

The afternoon session was called to order by President McLean, and Professor McGraw, of Detroit, read an excellent paper "On the Origin of Cancers and Tumors." He presented a patient

from whom he had removed the thyroid gland, and one patient from whom he had removed the entire left clavicle. These cases were of great interest and drew out quite a discussion.

Dr. Lundy, of Detroit, read a paper on "Iritis and its Relation to Certain General Diseases." Dr. Brodie opened the discussion, followed by Dr. Bennett and others.

At 4 o'clock, the discussion of the Treatment of Fractures was taken up by Dr. Kingston, of Montreal, followed by a number of gentlemen of large experience in this line of surgery.

Letters and telegrams of regret were received from Dr. Tye, of Chatham, Dr. Edwards, of London, Dr. Reeves, of London, Dr. Russell, of Toronto, Dr. Gribe, of Toronto, Dr. Dupuise, of Kingston, Dr. Beemer, of London, Dr. Woodruff, of London, Dr. Howard, of Montreal, Dr. Phelan, of Kingston, Dr. Covington, of Toronto, Dr. Burgess, of London, Dr. Rauch, of Springfield, Ill., Professor Goodale, of Philadelphia, and Dr. Jackson, of Chicago.

Dr. George K. Johnson, Chairman of the Committee on Reorganization, reported quite a number of important changes and recommended that they be adopted. The report was ordered printed and laid on the table for one year.

Dr. Casten, of Detroit, read a paper on "Sterility." It was discussed by Professor Palmer, of Ann Arbor, Professor Octerlooney, of Louisville, Ky., and others.

The evening session was called to order at 8:30 o'clock.

President McLean introduced Dr. Morse, of the Ohio State Medical Society.

Dr. Cook, of Muskegon, was called to the chair, and Professor McLean delivered his address, which was an able effort and well received.

Professor Palmer read a very exhaustive paper on "The

Physiological and Therapeutical Action of Alcohol." There was a large audience present to hear this paper, and the discussion of it was quite spirited. Dr. Whelan, of Hillsdale, led in the discussion, and afterwards read a paper entitled "The Possibility of a Concurrent Opinion upon the Physiological Effects of Alcohol."

The following gentlemen were proposed for membership: Dr. Merritt, of Fort Gratiot; Dr. Wilson, Port Huron; Dr. Chittock, Detroit; Dr. Smith, Detroit; Dr. Ingals, Detroit; Dr. Taylor, Loomis; Dr. Blanchard, St. Clair; Dr. McLaughlin, Cass City; Dr. Northrup, Port Huron; Dr. Stockwell, Port Huron; Dr. Clancey, Port Huron; Dr. Taylor, Mt. Clemens; Dr. Tibbitt, Linden; Dr. Chamberlin, Flint; Dr. Thompson, Flint; Dr. McIntee, Melin; Dr. Moors, Richmond; Dr. Ruch, Ypsilanti.

The Executive Committee at Port Huron consisted of Dr. Mills, Dr. Smith, Dr. McClintock, Dr. Plats and Dr. Stockwell, and these gentlemen had arranged to entertain all who were in attendance at the meeting.

Dr. Stockwell, of Port Huron, the first President of this Society, was warmly congratulated.

The Thursday morning session opened promptly at 9:30.

The papers of Professor Palmer and Dr. Kinne, of Ypsilanti, were discussed at length and referred.

Dr. Smart reported a bill to Regulate the Practice of Medicine and Surgery, which was referred to a committee of five, and later in the day that committee reported favorably, and the Legislature will be asked to pass the bill.

Dr. Smart also suggested that a bill be prepared to the effect that all proprietary medicines must have their working formula on the labels and the bottles, and that the bill shall be prepared and presented to our next Legislature.

Dr. De Camp, of Grand Rapids, read a paper entitled "Germs in Medical Practice," and the paper was discussed by Dr. Shurley, of Detroit.

The following officers were elected for the coming year:

President.—Dr. E. P. Christian, of Wyandotte.

Vice-Presidents.—Dr. Patterson, of Charlotte; Dr. Griswold, of Grand Rapids; Dr. Carstins, of Detroit; Dr. Alvord, of Battle Creek.

Secretary.—Dr. Ranney, holds over.

Treasurer.—Dr. Smart, of Hudson.

The report of the Treasurer, Dr. Smart, is that the receipts of the year was $1,382.10; expenses, $407.33; on hand, $974.77.

Dr. Kinne, of Ypsilanti, read a paper on "Post Partum Hemorrhage."

Dr. Stockwell read a paper on "Functional Paralysis due to Malarial Poison."

Dr. Hemingway, of Kalamazoo, read a paper on "Students' Eyes."

Dr. George, of Ann Arbor, read a paper on "Abscess of the Cerebellum."

Dr. Sullivan, of Ann Arbor, read a paper entitled "Atresia of the Vagina with Loss of the Urethra and Base of the Bladder."

These papers were all discussed and referred to the Publication Committee.

At 4:30 the Society, and the invited guests, took the steamer "Conger" for a ride into Lake Huron, and returned to the Oakland House in the evening and enjoyed a fine supper, by invitation of Dr. Blanchard. Dr. McLean and Dr. Stockwell responded to the toast "Our ex-Presidents." Dr. Morse, Dr. Kingslin, of Montreal, and Dr. Octerlony, of Kentucky, responded to "Our Guests." Dr. Ward read a paper entitled

"The Professional Dude." "New Members," was responded to by Dr. Frothingham and Dr. White, of Detroit.

The Society returned to Port Huron at a late hour, each member delighted with Port Huron and satisfied that the present session had been one of the most satisfactory that the Society had ever held.

CLINICAL REPORTS.

MERCY HOSPITAL CLINIC. *Service of* EDMUND ANDREWS, M. D., LL. D. *Professor of Clinical Surgery in Chicago Medical College.*

CASE 1. *Total obstruction of the Colon for four months. Colotomy.*—This remarkable case was previously under the care of Dr. Le Duc, of Lagrange, Ills., who sent it here. The patient states that some years ago, while living in England, she had a large tumor removed by way of the vagina while under the influence of chloroform. On awaking she saw the tumor, which appeared to her as large as a "bullock's heart." She had a vague idea that it was perhaps an ovarian tumor, but as their are no marks of incision on the abdomen, it was probably a uterine growth. After the operation there was a gradual diminution of frequency of the fecal evacuations, until they at last occurred only once in a week or two. Some months ago there was an attack of inflammation in the region of the sigmoid flexure. Last winter the movements of the bowels become still less frequent, until in March, 1885, there was only one evacuation, and that was the last she ever had. She continued to take food moderately, retaining it for a time, but always vomiting up the remnants of it at last. Dr. LeDuc

witnessed the vomiting repeatedly and pronounced it decidedly stercoraceous, even to having a cylindrical form, as if molded in an intestine. He is of the opinion that the watch kept on her case has been so long and thorough, as to exclude the possibility of a successful hysterical deception. Granting, then, that the history is not erroneous, this woman has been four months without an operation of the bowels. She presented at clinic an appearance of mild invalidism, but by no means of desperate emaciation and exhaustion, and she was able to walk about freely. On examination, the rectum was found absolutely clean of all fecal matter, and Dr. Le Duc had repeatedly examined with the same result. There was no stricture within nine inches of the anus. There was no induration nor tumor to be felt in the abdomen, and there was a moderate layer of fat under the abdominal integument. In consideration of the history, I judged that there was obstruction of the colon at or near the sigmoid flexure. I therefore performed lumbar colotomy, in the usual way, on the left side. I was disappointed to find the colon, when opened, absolutely destitute of any fecal contents. The patient was placed in bed, and experienced a considerable diminution of the tendency to vomit, but the constipation continued. Being in bed, it was easy to prove that there was no hysterical deception this time. However, on the sixth day after the operation, she had three free evacuations from the artificial anus. Another period of inaction ensued, but on the fourteenth day the bowels moved again, and on the fifteenth day they moved once or twice more. The vomiting is slight, but has not altogether ceased. The case is still under observation, and may be the subject of future report.

CASE 2. *Carcinoma of the Pylorus. Laporotomy.*—This patient has a small, hard, and movable tumor between the xiphoid

cartilage and the umbilicus. He had been rapidly losing flesh, but still walked about. An exploratory incision was made, with antiseptic precautions, in the linea alba. The tumor lay behind the lesser omentum, compelling me to pass through that membrane. Its base firmly embraced the pylorus, and adhered strongly to four inches of the lower border of the stomach. Exploration with the fingers, showed enlarged and indurated mesenteric glands in the vicinity. As the infection of the glands rendered a cure impossible, it was useless to put the patient to the perils of an excision of the pylorus, so that it was necessary to desist, and close up the incision. The patient recovered from the operation without any signs of peritonitis.

In Vienna the famous excisions of the pylorus performed for this disease are being abandoned. In fact, it is impossible to justify their performance. At present, Billroth is experimenting on a temporary alleviation by opening the small intestine, and stitching it to an orifice in the stomach, thus providing a route for the food, but leaving the disease untouched. Thus far most of the patients appear with great punctuality in the dead house, though a few survive a little longer, until the disease kills them.

CASE 3. *Litholapaxy.*—This patient is a young man in fine health. The stone was very small, measuring less than a centimeter in diameter. On being seized and crushed with a lithotrite, almost every particle of it was drawn out in the jaws of the instrument, so that the evacuator next inserted in due course of the operation washed away only a few fine grains of sand. The patient recovered in a few days. This is my twenty-sixth case of litholapaxy, with only one death.

CASE 4. *Litholapaxy.*—The patient came to the clinic from a distant State, and in an exhausted condition from malarious poisoning complicated with cystitis. He had been mostly con-

fined to his bed for a month and a half. Examination showed a stone in the bladder three-quarters of an inch in diameter, which was crushed and washed out at one sitting under the influence of ether. The operation was done in the presence of warm carbolized water, which by its benumbing influence on the nerves of the bladder, powerfully prevents shock, as well as septicism. Slight inflammation followed with a maximum temperature on the second day of $101\frac{1}{2}^{\circ}$ F. This rapidly subsided under the use of quinine, morphine and carbolized injections. One of the subsequent examinations detected a small remaining fragment of stone, which being removed, the patient was freed from all trouble, and was able to travel at about the thirty-fifth day.

ABSTRACTS AND EXTRACTS.

USES OF TRAUMATICINE.

Dr. C. Costa calls attention in *La Salute* to the beneficial effects obtained by traumaticine in many cutaneous diseases, such as psoriasis, pityriasis versicolor, scrofuloderma and lupus erythematodes.

To Auspitz of Vienna belongs the credit of the introduction of this remedy and the indications for its uses. Traumaticine is a solution of one part of gutta-percha in ten parts of chloroform. It is a syrupy liquid, smells strongly of chloroform, and has a color and a consistence according to the quality of gutta-percha used; of this there are three qualities. The *brown* is that which is most abundantly found in commerce. It dissolves with greater difficulty. It dries more slowly, but preserves its elasticity longer. The *red* is that used by dentists.

It dissolves more readily in the proportion of 10 % and also of 20 % : it forms a liquid of a rosy color, and it is to be preferred where it is to be applied to exposed parts of the body, as the face, hands, etc. The *white* dissolves quickly in chloroform in the proportions of 10 and 20 %.

These solutions when applied to the skin easily penetrate in every fold and irregularity, and thereon dry with moderate rapidity. They form a thin adherent pellicle, white, rosy or brown according to the quality of the gutta-percha. The traumaticine folds and bends according to the movements of the skin, without breaking or detaching itself, and without causing any pain, compression or excessive stretching. Numerous remedies can be suspended in it according to their indications, as crysarobin at 10 % or more, as also sulphur, iodoform, salicylic acid, boric and pyrogallic acid and other subtances.

For the first time it has been used by him in the treatment of acute blennorrhagic epididymitis, applied in layers externally. Before applying it, the scrotum is to be shaved, and ice is to be applied to it for half an hour so as contract it and reduce its size. By this method the swelling has rest, protection and compression, and rapidly disappears.

Costa praises the applications of traumaticine as the best remedy in these disorders.

A, LAGORIO.

Chiavari, Italy, 27th May, 1885.

ECBOLIC ACTION OF PILOCARPIN.

The important action of pilocarpin in the production of premature labour has already been recognized by some writers, and a few cases have been placed on record. Dr E. Quinta-

valle has recently had an opportunity to test this action, and obtain a most satisfactory result. The case, presenting many points of interest, has been published in the March number of *Il Morgagni.*

The patient was 23 years old, married two years and a primipara. When a girl she had suffered with acute articular rheumatism; menstruated in the 15th year; and had an abortion three months after marriage. Since the commencement of her last pregnancy she has suffered constantly from great dyspnœa. She never consulted any physician, till now, when being in the 7th month of her pregnancy, and her sufferings becoming greater, she decided to do so. Dr. Quintavalle found her in sitting posture in bed, any other position being impossible for her, presenting marked dyspnœa and tumultuous pulsations of the heart. No physical examinations could be made by percussion nor with a stethoscope, for the patient could not bear the slightest pressure on the thoracic walls. Her face was swollen of a dark-red color; the lower limbs and hands were œdematous; the belly was slightly larger than the usual proportions observed in the 7th month of pregnancy. Fatigued by the frequency and shortness of breath, the voice did not rise above a low whisper; she urinated very little, and none of the urine being present, the doctor could not examine it. Unable to make any accurate examination, Quintavalle, taking in account the past history of the patient, made a diagnosis of an acute stenosis of the left auriculo-ventricular orifice, due to an endocarditis developed during the pregnancy, and recognized in the marked pulmonary stasis the actual fact most dangerous to the life of the patient. To treat the stasis he bled the patient, which produced a slight improvement. He administered digitalis for the heart-trouble, and did not omit cutaneous derivatives. He called again to see her three weeks

after, in company with another practitioner, and found the patient much worse. He thought it prudent not to use the same therapeutic means as before, but decided to proceed to induce premature labour. Nothing else remained to be done but to select the most suitable method. The condition of the patient did not permit the use of the ordinary means. Remembering the good effects of pilocarpin, both agreed to try its value. Six centigrams (1 grain) were prescribed dissolved in three grains of water, and a third part was immediately injected hypodermically into the internal part of the left thigh. After eight or ten minutes the physiological action of jaborandi was observed: mydriasis, profuse salivation and perspiration with nausea. A digital examination made after 15 minutes showed no change in the uterine neck. The general phenomena being now almost dissipated, another injection of 2 centigrams was made in the right thigh. The same physiological action of the remedy reappeared, together with a relative euphoria in the conditions of the patient. At the same time she began to notice some sensations which showed a beginning of uterine contractions. After waiting twenty minutes and these not increasing, two centigrams more of the alkaloid were injected: the same result followed its use, attended by a greater freedom of respiration and a notable diminution in the symptoms of stasis. The womb now began to act. The patient was left under the care of a midwife and was safely delivered, after 30 hours from the first injection of pilocarpin, of a vigorous, sound and living child.

Having ascertained this effect of muriate of pilocarpin in the induction of premature labour, it remains to be proven in what way jaborandi can produce this result. There is a physiological reason which permits us to give an explanation, plausible at least, of the ecbolic action of pilocarpin. It is known that where pilocarpin is introduced into

the system hypodermically, it immediately produces a diminished pressure of the arterial system: this can be recognized by looking at the profuse salivation and perspiration, which phenomena are really the expression of a sudden nervous disorder, which exactly agrees with the fact of a temporary anæmia of the centers of innervation. This anæmia of the nervous centers produces different forms of neuroses, which we observe daily. These neuroses are centric or periphereral, circumscribed or diffused, according to the seat of the anæmia and according to its completeness.

Then we can see how pilocarpin can produce premature labour by diminishing the arterial pressure, producing therefore an anæmia of the center innervation of the uterus, and causing a sudden neurosis of this organ, greatly predisposed to it by its state of gestation.

Quintavalle recommends the use of hypodermic injections of pilocarpin to induce premature labour, for it improves the chances of both mother and child; and we know the dangers of the ordinary processes, and the great repugnance to their application. A. LAGORIO.

STATE BOARD OF HEALTH.

TRANSACTIONS OF THE ILLINOIS STATE BOARD OF HEALTH.

At the regular quarterly meeting of the Illinois State Board of Health, held in the city of Chicago, April 16th and 17th, the Secretary in his usual report stated that fewer certificates entitling to practice in the State have been issued to physicians during the past quarter than during any corresponding period in the history of the Board: To graduates, upon diplomas from medical colleges in good standing, 116, and to 2 others upon examination in branches omitted by their respective colleges; also 2 to non-graduates upon proof of over seventeen years' practice in the State. There were 22 applications for certificates rejected through failure to comply with the requirements of the Board—which is also less than the usual proportion of such cases.

MEDICAL EDUCATION.

As it is during this quarter that the new graduates in medicine begin to appear, their applications have been watched with more than usual interest at this time, as affording some clue to the effect of the new schedule of requirements.

Although 78 medical colleges out of the 116 in the United States, claim to have exacted, at their last session, a preliminary-education requirement as a condition of matriculation, the evidence afforded by the applications thus far received goes to show that in too many cases the standard of such education must be very low.

From the graduates of one college, which announces that a preliminary examination will be held in accordance with the rules of the State Boards, five out of the seven applications received contain such intrinsic proof of defective preliminary education, that they were presented to the Board.

[The following is a verbatim copy of a typical specimen of the applications submitted:

I send to you my Diploma for your approval the degrees Doctor of Medicine was confered upon me at the ---------- annual Commencement of the ---------- held on Teusday Mar the ---- 1885. you will pleas return as soon as possiabl and oblige. Enclosed you will find the fee for Regestration.

Yours truly

P S if the fee is not suficient I will forward the balance if you notify me by card I understood the fee was one Dollar.

I presume the enclosed Papers will be all that will be requierd. return Diploma to Me at ---------- Illinois ---------- co.

In another case the first letter, dated March 9, contained a request for a blank affidavit, which was, of course, immediately forwarded. The signature to the affidavit, received March 14, was so evidently not by the writer of the first letter—which was unexceptionable in every respect—that some delay occurred, pending inquiry. Under date of March 30, the applicant, in a handwriting differing both from that of the letter of March 9 and from the signature to the affidavit, writes:

I send you my Deploma today by Expr. and letters of recommendation. I sent fee and affidavit Bout three weeks since. I would like to know at once whether or not to expect a Certificate. you will please return Deploma by Exp.

It is possible that this young gentleman—who, by the way, states that his school of practice is "Alapathy"—passed his entrance-examination as he conducts his correspondence—that is, by proxy.]

There is other evidence—some in the form of direct charges by rival schools, some by the students themselves—that the entrance-examination is, in many cases, a mere form. Colleges

which, on inquiry, claim to exact proof of general preliminary fitness and capacity for the study of medicine, evade the spirit and intent of the requirement in a variety of ways. In some instances it is announced that the examination is confined to applicants who intend to practice in the States in which such examination is made a test of the good standing of a college. In other cases the requirement is entirely omitted from the college announcement, but graduates intending to practice in the States just described are furnished special certificates, setting forth that they have undergone the preliminary examination demanded. Still another form of evasion consists in announcing that a preliminary examination is exacted, but coupling this announcement with a long list of equivalents which will be accepted in lieu of such examination, beginning with the diploma of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate (the only substitutes which the Board accepts), and ending with a "special arrangement" whereby the certificate of a preceptor is accepted as sufficient evidence.

It is not to be inferred, however, that there has been no gain or improvement in the standard and methods of medical education since this schedule of minimun requirements was first published. On the contrary, probably all has been accomplished that could have been reasonably expected. But these illustrations will indicate the scope and methods of the antagonism aroused by a measure for improvement, the first effect of which results in diminished classes and loss of income—an antagonism natural enough, perhaps, in view of the largely commercial character of many institutions of medical education. They also serve to show the necessity for further earnest and continuous effort.

In this direction it is suggested that one of the tests of the

good standing of a medical college, for the purposes of the Medical-Practice Act in this State, should be its honest and unequivocal statement, in annual announcement and elsewhere, of the requirements for admission to its lecture-classes, and an honorable and impartial enforcement of such requirements.

To secure the recognition of its diplomas in this State—as in good standing—every college should distinctly announce that the conditions of admission to its classes are: 1. Credible certificates of good moral character. 2. Evidence of the possession of a good English education, including mathematics, English composition and elementary physics, or natural philosophy—such evidence to be furnished, in the absence of a diploma or certificate of graduation from a good literary and scientific college or high school or a first-grade teacher's certificate, by a thorough examination in the branches of such education. While this is the minimum, as to preliminary education, which should be distinctly specified and impartially exacted, it does not preclude colleges, from making other requirements as conditions of admission to their lecture classes.

The Secretary also suggests that the affidavit now required by law as to the lawful possession of a diploma, may be properly modified so as to include the information necessary to aid the Board in deciding whether such diploma was issued by a legally-chartered medical institution in good standing, as the third section of the Medical Practice-Act requires it to be—such modification to consist, substantially, in striking out the words "said institution," with which the declaration ends in the affidavit now in use, and substituting therefor the words *a legally-chartered medical institution in good standing, as defined by the Illinois State Board of Health, in its Schedule of Requirements printed on the back hereof.* A foot-note on the face of the affidavit should call the especial attention of the affiant to the import of this declaration.

The law specifically requires that applicants for certificates shall furnish this proof—proof not merely that their diplomas are from legally-chartered medical institutions, but that they are from such institutions "in good standing." Obviously the graduate of a given institution is a competent, if not the best, witness as to the qualifications, exacted of him before he received its diploma. And since these qualifications go to the essence of the question as to the standing of the institution, it is submitted that the Board should avail itself of this form of proof.

Acting upon these suggestions the Board subsequently during the meeting adopted the following resolution:

CONCERNING MEDICAL EDUCATION.

WHEREAS, Many medical colleges do publicly announce that an entrance examination of candidates for admission to their lecture courses will be exacted, and do honestly and impartially enforce such examination; while, on the other hand, a number of schools either avoid making such announcement, or evade the practical enforcement of any requirement of general education preliminary to the study of medicine; and

WHEREAS, These conflicting practices result in lowering the standard of medical education by attracting to a certain class of schools students who are poorly prepared for the study of medicine; therefore be it

Resolved, That, in order to secure the recognition of its diplomas as in good standing for the purposes of the Medical Practice Act in this State, it is necessary that each college shall distinctly state in its annual announcement that the conditions of admission to its classes are: 1. Credible certificates of good moral character. 2. Diploma of graduation from a good literary and scientific college or high school, or a first-grade teacher's certificate. Or, lacking this, a thorough examination in the branches of a good English education, including mathematics, English composition, and elementary physics or natural philosophy.

Resolved, That the Secretary of the Board be, and hereby is, instructed to furnish a copy, of the foregoing preamble and resolutions to the Dean or Secretary of every medical college, and to the editors of medical journals, in the United States.

On motion of Dr. Mackenzie it was also

Resolved, That, since the publication of the names and addresses of matriculates is desirable for purposes of information, the Secretary be authorized to request of all colleges desirous of being accounted in good standing in this State, that they publish in their successive annual announcements

complete lists of the matriculates, as well as of the graduates, of each immediately preceding session.

THE CHOLERA.

In connection with the efforts made to secure information from the National authorities concerning the status of cholera abroad, attention is called in the report in the cable dispatches received by the newspapers during the meeting announcing that the French, Italian and Portuguese governments had ordered a quarantine of detention against Spanish vessels; and the appearance of the disease at Jaen, in the province of that name, in the south of Spain, and at Santiago de Compostela, in the extreme northeastern province of Coruna—the same dispatch saying that the panic in Spain over the spread of cholera is increasing as reports continue to arrive showing that new points are being constantly attacked; that the government is taking energetic measures to isolate infected towns; and that a circular of warning has been sent by telegraph to the authorities of all the provinces cautioning them against the admission of persons or goods from twelve specified towns, all of which are officially stated to be more or less infected.

Simultaneously with this latter information the first official statement was made public by the Secretary of State, who announced on the 18th of April, the receipt of a dispatch from the United States consul-general at Madrid, saying "that he is informed by the director-general of health that there is no cholera in Spain, and that the cases recently reported in the province of Valencia are not cholera." The Spanish government has instructed its embassidors to protest against quarantine restrictions, and a dispatch of the 19th inst., from Barcelona also asserts that the disease is not Asiatic Cholera, but cholera morbus or cholerine due to local causes, the outbreak at Alcira, near Valencia, for example, being caused, it is claimed, by the failure of the regular water supply, in consequence of

which "the people have been drinking from a canal which was tainted by paper mills that use suspicious rags."

In view of these contradictory statements, and in the absence of full and authentic information from the National health authorities, sanitarians are justified in regarding, for precautionary purposes, the disease now so widely spead through the littoral provinces of Spain as true Asiatic Cholera, and in apprehending present danger of its introduction into this country through commercial intercourse with the Spanish possessions in the West Indies—Cuba, Porto Rico, etc.—and less directly with those in South America.

Attention is also called to the fact that the country is threatened with an influx, by imigration from Italy, of a people reduced to the verge of beggary and starvation by last year's cholera epidemic and its results. The low rates of passage will tempt to violation of the law against overcrowding, with all the suffering and unsanitary conditions which will thence result. The poverty of the people and their modes and habits of life will add to the evil; and increased burdens and responsibilities will be thrown upon the authorities of every port at which these immigrants land, as well as upon the communities in which they may settle. These considerations may make it necessary to begin the work of sanitary supervision of travel and quarantine along the State boundary lines earlier than would otherwise be necessary. Already the first instalment of the Italian immigration has arrived in Chicago.

The Board adopted the following preamble and resolutions concerning these matters:

CONCERNING INFORMATION OF FOREIGN EPIDEMIC DISEASES.

WHEREAS, Prompt, full and trustworthy information of the existence of epidemic diseases, such as Asiatic cholera, yellow fever and small-pox, in the foreign ports in commercial relations with this country, is a matter of the first importance to the success of efforts for preventing their introduction or limiting their spread; and

WHEREAS, It is understood that, under the authority conferred upon the President by Sec. 1752 of the Revised Statutes of the United States, consular officers and other foreign agents of the General Government are required to furnish such information : Therefore, be it

Resolved, That the Secretary of this Board be, and he hereby is, instructed to respectfully request of the honorable the Secretary of State that he cause to be transmitted to the office of this Board, at Springfield, so much of such information as may be useful in guiding action for the protection of the people of this Commonwealth against Asiatic cholera, yellow fever and small-pox.

On motion of Dr. Clark it was also

Resolved, That the State Board of Health of the State of Illinois respectfully but earnestly requests the President of the United States to authorize the National Board of Health to use so much of the contingent epidemic fund, appropriated by the last Congress, as may be necessary for preparing and enforcing an adequate system of preventive measures against the introduction and spread of foreign pestilential diseases in co-operation with, and in aid of, State and local health organizations and with especial reference to Asiatic cholera.

Resolved, That the Secretary be authorized to transmit a copy of this resolution to the President.

STATE SANITARY SURVEY.

As already stated, the first distribution of the blank inspection returns and accompanying instructions, embracing an aggregate of about 270,000 houses, was completed during the last week of the quarter. This distribution began with Alexander county and progressed northward to the tier of counties along the Wisconsin line, which was reached in ample time to prepare for work as soon as the weather would permit. Before the middle of the State was reached, responses began to be received from localities in the southern counties, and by the close of the quarter 143 towns had been heard from. General publicity has been given to this effort by the press of the State, to secure which special circulars were addressed to the editors of 775 different publications.

A blank form for a tabular statement of these inspections has been prepared and printed, and is now ready for distribution. These will be furnished in duplicate sets, one to be

returned to the office of the Board. They will show, at a glance, the actual sanitary condition of any given house and premises at the date of inspection; and, in the event of Asiatic cholera, or other epidemic contagious disease, making its appearance in a locality, they cannot fail to be of great practical value, not alone to the authorities of such locality, but also to the Board, in indicating, without loss of time, the direction and manner in which its coöperation, advice or authority may be best employed.

Circular-letters have been addressed to the managers of all railroad companies operating in this State, urging immediate attention to the condition of the water-supply and of privies and water-closets at stations, shops, roundhouses and other places along their respective roads. Satisfactory replies have been received from nearly every company addressed, and some of the most important have already practically completed the required work.

County boards and officers in charge of public institutions—alms-houses, jails, asylums, etc.—have also been requested to secure a thorough sanitary policing of such places, and specific instructions on the most important points have been furnished.

Copies of the blanks, forms, etc., prepared for this general work, have been furnished, on request, to the health department of Chicago; and an excellent form of inspection return, modified to meet the city conditions, has been prepared by the Commissioner of Health, Dr. DeWolf, for an inspection of some 70,000 houses. It is proposed to complete the inspection of 50,000 of these, and to secure the correction of the defects thus disclosed, by the 1st of June.

One of the encouraging indications of the interest taken in this effort to prepare the State against an epidemic is found in the large number of letters from private individuals asking advice, making suggestions, or expressing approval.

SANITARY CONDITION OF CHICAGO.

During the Friday morning session, Dr. O. C. DeWolf, Health Commissioner of Chicago, was present by invitation to speak upon the sanitary condition of the city, the work in progress and projected, and the preparations for cholera. From the standpoint of the sanitarian, Dr. DeWolf said, Chicago was a clean city, although its muddy streets made it seem dirty. Its low death-rate and the failure of small-pox to spread, notwithstanding 35 introductions of the contagion since last June, showed it to be clean in a sanitary sense; and the work now in progress and projected would, he believed, make it clean in appearance as well as in fact. Referring to the house-to-house inspection in the State at large, he said that the health department was also inspecting at the present time about a thousand houses a week in the worst quarters of the city; in a short time this would be increased, so that by the middle of June he hoped to have all that really required supervision thoroughly inspected and put in good condition. Some 9,000 tenement houses, which are usually a serious sanitary evil in all large cities, are under constant supervision, and he believed them to be as unobjectionable as it was practicable to make such buildings. If cholera should come, the preparations were already completed to promptly take charge of the first cases, to furnish medical attendance and nurses, to depopulate an infected house or locality, and to carry out whatever measures were necessary to prevent any spread.

The thanks of the Board were tendered Dr. DeWolf by the President, for his very interesting and reassuring statement.

At the afternoon session Mr. O. C. Guthrie, of Chicago, presented, by invitation, a brief outline of his plans for the sewerage and drainage of Chicago and its suburbs. Their important features embrace a study of the hydraulics of the

Desplaines river, with reference to the effect of high water upon the cleansing of the Chicago river through the canal (by counteracting the action of the pumps), upon the integrity of the canal itself, and upon the safety of Chicago and Joliet from inundation.

DISINFECTION AND DISINFECTANTS.

The Secretary asked leave to submit a copy of the Preliminary Report on Disinfection and Disinfectants made by the Committee on that subject appointed by the American Public Health Association, stating that, as Secretary of the Sanitary Council of the Mississippi Valley and chairman of its special committee on General Sanitation, he had, in accordance with a resolution of the council, addressed a letter, March 14th, to Surgeon George M. Sternberg, U. S. A., chairman of the Committee on Disinfectants, requesting to be furnished with "a plain, practical paper on disinfection and disinfectants for popular use and distribution." Surgeon Sternberg, under date of April 14th, in a letter accompanying this copy, writes: "At a special meeting of the Committee on Disinfectants, called for the purpose, the paper submitted was carefully considered and adopted unanimously as expressing the views of this committee with reference to the best methods of disinfection known to us."

As this paper was intended for popular use and distribution the Secretary remarked that he knew of no better way of securing that end than by publishing it in the report of the proceedings of the Board.

Dr. Ludlam moved that the copy of the Preliminary Report be received and published as suggested. Carried. It was subsequently ordered that the Secretary prepare a special edition of the paper, embracing only the practical instructions, for the use of local boards of health and health officers throughout the State.

During the sessions the following action was taken upon cases arising under the

MEDICAL-PRACTICE ACT.

Dr. Charles McLean, of No. 182 West Madison street, corner of Halsted, Chicago, charaged with unprofessional and dishonorable conduct in (1) Fraudulently issuing a card in the following terms :

Dr. McLean's Medical Institute for Female Diseases, 182 West Madison street, Room 11. Phrenology and Mesmerism Successfully Taught. Terms reasonable. President—Charles McLean, M. D., assisted by Prof. L. H. Anderson and others. Dr. McLean's New Developer for Delicate Ladies never fails to Strengthen the Chest, Develop the Bust, and Beautify the Complexion.

(2) Attempting to blackmail a female patient, attracted by the foregoing card, and whose testimony before a Chicago police justice, submitted to the Board, established the fact of grossly indecent solicitation and practice on the part of said McLean. (3) Obtaining money under false pretencees, for which he was arrested, confined in jail, and released on refunding the money. (4) Grossly immoral conduct and general reputation in the building where his so-called "Institute" was located.

In a pamphlet styled "The Mind Cure," dated October, 1884, appeared the following :

"We duly appreciate an interesting call and visit by Charles McLean, M. D., LL. D. The doctor is widely known in Europe and America. Is a graduate of Glagow University, Scotland, in the O. S. ; also a graduate of one of the Chicago medical colleges, N. S. Has been a student of law and theology, and in the latter received D. D., but chooses not to use it, having retired from this field after two journeys around the world. He is an author of some repute, and speaks several languages. He is now a resident of Chicago. Full of energy, has gained wealth and prominent standing among druggists here and across the water. We find him cultured and progressive. He had learned of our new association and purpose and spoke so highly of the Mind Cure system we told him our door was open if he could identify with it. He is now a member of our association and a contributor to its finances. Also to be an editorial contributor to our columns. Such steps are portentous. Let them come. The doctor now is president of a Medical Institute at 182 West Madison street and will be heard from."

Dr. McLean had been duly notified to appear in answer to the foregoing charges, but it was stated by one of the sworn witnesses that he had disappeared after being released from jail. After a full consideration of the evidence presented, it was ordered that certificate No. 5853, issued to Dr. Charles McLean on the 13th of March, 1883, be revoked.

Dr. James F. Cook, of the "St. Jacob Institute," No. 14 South Clark street, Chicago, charged with unprofessional and dishonorable conduct in (1) Being associated with a fraudulent medical "institute," so-called, of which he advertises himself to be the "superintendent. (2) Falsely testifying as to the physical condition of one Smith Whittier, for the purpose of mitigating the sentence of said Whittier, convicted in the United States District Court of sending obscene matter through the mails. (3) Writing, publishing and distributing an obscene pamphlet entitled "Hidden Secrets."

Dr. Cook had been duly notified to appear in answer to the foregoing charges, and after full consideration of the evidence submitted, it was ordered that Certificate No. 527, issued to Dr. James F. Cook on the 2nd of January, 1878, be revoked.

Dr. J. Alonzo Greene, formerly of St. Louis, Mo., now at 34 Temple Place, Boston, Mass., charged with unprofessional and dishonorable conduct in (1) Falsely and fradulently claiming to have established "a system of *curing all forms of chronic or lingering diseases.*" (2) Falsely and fraudulently advertising that the Illinois State Board of Health, among other Boards, Colleges and Medical Societies, had awarded him and his associates "diplomas for their remarkable skill in curing disease, and their discoveries of valuable remedies." The evidence being deemed conclusive as to the truth of the charges, it was, after due consideration,

Ordered, That Certificate No. 4811, issued to Dr. J. Alonzo Greene on the 17th of December, 1880, be revoked.

Dr. Joseph Atherton, of East Paw Paw, DeKalb county, whose certificate was revoked October 5, 1882, and who had asked an opportunity to present reasons for its restoration, stated that he acknowledged the sufficiency of the grounds upon which his certificate had been revoked, but claimed that he had been misled, and upon discovering his mistake and its consequences had abandoned the objectionable practices. He asked the Board to restore his certificate, pledging himself to act in conformity with the requirements of the Medical-Practice Act as to honorable professional conduct, and sustained his application by strong commendatory letters from physicians and others. On motion of the Secretary, Dr. Atherton's certificate was ordered to be restored.

On motion of Dr. Mackenzie, all other cases under the Medical-Practice Act, not otherwise disposed of, were continued to

a special meeting to be called by the Secretary at an early date.

At 9 o'clock P. M., Friday, the annual examination of candidates was concluded. The Secretary announced that two of the class of nine had withdrawn without attempting to pass the preliminary examination upon general education. Of the remainder, the following gentlemen attained the required percentage entitling them to pass:

ADOLPH C. BRENDECKE, Chicago.
JONATHAN E. CLARK, Mason, Effingham county.
JAMES D. CRAIG, M. D., Rogers' Park, Cook county.

The following is the schedule of questions submitted at this examination, and to which eighty per cent. of correct answers was required in order to pass.

ILLINOIS STATE BOARD OF HEALTH.

Quarterly Meeting, Chicago, April 16–17, 1885.

EXAMINATION IN ANATOMY.

BY W. HASKELL, M. D.

1. Describe the frontal, sphenoidal and maxillary sinuses. Which ones exist in infancy?
2. Give the anatomy of the shoulder joint.
3. Describe a rib.
4. Describe the muscles concerned in pronation and supination of the fore-arm.
5. Name the branches of the external carotid artery.
6. Describe the circulation of the liver.
7. Describe the brachial plexus, giving the nerves of which it is formed, its location and its branches.
8. Name the arteries, veins and nerves cut in an amputation of the leg in its middle, and give their relations.
9. Give the anatomy of the eye.
10. Give the anatomy of the prostate gland.

EXAMINATION IN PHYSIOLOGY.

BY W. R. MACKENZIE, M. D.

1. Describe the physical properties of the blood.
2. Its chemical composition.
3. Its structural character.
4. Its pulmonic and its systemic circulations.
5. Its circulation in the fœtal heart.
6. Describe the function of respiration.
7. What are the sources of carbonic acid in the body?
8. State the normal relation of the respiratory act to the heart-beat.
9. Describe digestion.
10. What is the function of the liver in the process of nutrition?
11. Give the composition and properties of chyle.
12. What is bile—its source and function?
13. What is secretion, and name the more important secretions of the body.
14. What is the specific gravity of normal urine?—its reaction.
15. What is the normal temperature of the human body, and what the minimum and maximum temperatures consistent with life?
16. What are the general functions of the great sympathetic or tri splachnic nerve?
17. What is sensation, and what are its various kinds or modes?
18. Mention the nerves concerned in the special sense of taste, and their respective offices.
19. Describe the physiology of sleep.
20. What is meant by somatic death, and to what is it due?

EXAMINATION IN CHEMISTRY.

BY A. L. CLARK, M. D.

1. What are the general properties of acids?
2. What is a salt?
3. Give the chemical symbols for tin, lead, potassium, sodium, iron, gold, silver, sulphur.
4. What is catalysis?—synthesis?
5. What is a quantitative analysis?
6. In what way would you test water for organic impurities?
7. To what chemical element in nitro-glycerine is due the explosive nature of that substance?
8. How are the gases forming air united?
9. Give the general properties of chlorine.
10. What is tetrad?
11. What is meant by the diffusion of gases?
12. Will the air at the top or bottom of a room contain the more carbonic acid gas, and why?
13. What fluid is the most universal solvent?
14. What is meant by the terms osmosis and exosmosis?
15. What are incompatibles? Give one or more illustrations.

EXAMINATION IN PATHOLOGY.

BY R. LUDLAM, M. D.

1. Define pathology as distinguished from physiology.
2. What is the difference between fever and inflammation?
3. Give the chief and common characteristics of the malignant diseases.
4. Define the difference between a general and a local disease, and give illustrations of each.
5. Explain the abdominal tympanitis of typhoid fever.
6. Describe the pathology of apthous ulceration.
7. What is emphysema, and what is its most frequent cause?
8. Give the pathological location of inflammation.
9. Which lung is most frequently inflamed, and why?
10. Why does pelvic congestion frequently alternate with portal congestion?

EXAMINATION IN MATERIA MEDICA AND THERAPEUTICS.

BY GEO. N. KREIDER, M. D.

1. Give the habitat, preparations, and therapeutic uses of erythroxylon coca.
2. What salt derived from it has been recently found valuable in therapeutics? Give its uses.
3. Describe the methods of producing two kinds of electricity.
4. Define the therapeutic indications of each.
5. Give the therapeutic uses and applications of cold.
6. Of heat.
7. What is your treatment of chronic constipation, and advice? Give your prescriptions.
8. Write a prescription for the first stage of cholera.
9. Give the composition and doses of five officinal preparations of opium.
10. How would you administer quinine other than by the mouth? Give two ways.
11. What general anæsthetic do you prefer? Describe your method of using it to produce anæsthesia, giving the precautions you would take.
12. Give the adult doses of cod-liver oil; chloral; oil of turpentine; asafœtida; salicylic acid; tincture of aconite; tincture of digitalis; solution of arsenite of potassium.
13. Give the officinal name and composition of Dover's powder; Fowler's solution; mercury and chalk; seidlitz powder; blue ointment; compound rhubarb powder.
14. What doses of compound tincture of opium would you give to children one, three and four years old, respectively? How much opium would each receive? How do you compute the dosage for children?
15. For poisoning by what drug would you give freshly prepared hydrated sesquioxide of iron? How you prepare it?

EXAMINATION IN HYGIENE.

BY JOHN H. RAUCH, M. D.

1. Name the principal preventable diseases in the order of their greatest fatality.

2. Give the differential diagnosis of small-pox—of scarlet fever—of measles—of chicken-pox.

3. What diseases are spread mainly through the medium of water—what mainly through the air—and what mainly by direct contact?

4. At what period of life is the death-rate the highest, and what are the principal preventable causes of such mortality?

5. Describe the operation of vaccination—its phenomena—complications—the relative merits and demerits of bovine and humanized virus—and state the ages at, or conditions under, which the operation should be repeated.

6. What precautionary measures would you, if a medical officer of health, enforce in a community threatened with Asiatic cholera?

7. What measures would you advise on the appearance of a first case of Asiatic cholera in your community?

8. What are the most common sources of pollution of a water-supply in large cities, and what in small towns, villages, and in the country?

9. What is the distinguishing characteristic of sewer-contaminated water?

10. What effect does boiling have upon a contaminated or impure water?

11. Mention the desirable sanitary conditions of a site for a dwelling—character of soil—drainage—exposure—elevation.

12. What are the pathological indications of defective sewerage and drainage of a house and premises?

13. What are the physical indications of the same condition?

14. What is ground air, and how may it be deleterious to health?

15. Within what distance of a well, or other source of water-supply, is a privy-vault dangerous in a sandy soil—in a loam—in clay?

16. What effect would general subsoil drainage produce upon the temperature, atmospheric humidity and wind movement of this State?

17. Formulate, briefly, a set of rules for school hygiene.

18. Mention four of the best disinfectants—state their applications—and give directions for their use.

19. Define the difference between an antiseptic and a germicide.

20. What diseases of animals are communicable to the human family?

EXAMINATION IN MEDICAL JURISPRUDENCE.

BY JOHN H. RAUCH, M. D.

1. Define medical jurisprudence, and state what degree of knowledge the law expects of a medical witness?

2. What is the duty of a medical witness as to questions of fact?

3. What is his privilege as to questions of expert knowledge opinion?

4. What are the important points to observe, with reference to the subject, in conducting a post mortem for legal purposes?

5. Describe the signs which would enable you to determine whether an incised wound had been inflicted before or after death?

6. What portions of the body would you select for a chemical examination in a case of suspected poisoning?

7. What are the indications of viability in the fœtus, and at what age are these found?

8. In suspected infanticide, what proof would determine respiration?

9. Describe the course of procedure in commitment to an insane asylum in this State.

10. What important legal bearing has the collection of vital statistics?

BOOK REVIEWS.

MODERN THERAPEUTICS OF THE DISEASES OF CHILDREN, WITH OBSERVATIONS ON THE HYGEINE OF INFANCY. *By* JOSEPH F. EDWARDS, M. D., ETC., ETC. *Philadelphia:* D. G. BRINTON. *8vo. 346 pp.*

This excellent compendium of the therapeusis of childhood is issued by the same publisher and with a similar arrangement to that of his "Therapuetics of Gynecology and Obstetrics," which is that of an alphabetical list of diseases with the various treatment suggested for each. In addition to this, there is a check-list of drugs under each head, also alphabetically arranged and starred according to Waring's original plan. Whether these stars have always been affixed to the most reliable remedies for the disease treated, often admits of discussion, as in the case of quinine for true croup and carbolic acid in pertussis; but surely he must be a captious practitioner who cannot find something appropriate in the generous list of drugs suggested. As is always the case, the more uncertain the disease, the more bewildering the number o

remedies proposed. For instance, under the head of diphtheria we find more than fifty remedies and the wildest contradictions in regard to treatment. Drysdale informs the reader that chlorate of potash is the most valuable of all remedies in diphtheritis, if given without timidity, while Herroch and others, especially warn us against large doses of the same. Calomel, he says, on page 150, is almost discarded in treatment, and on pages 153, 165 and 180, he recommends strongly its use, in one case in large doses. *Quot medici, tot sententiæ* regarding diphtheria, even to German nihilism, which asserts all remedies except sulphur "are entirely useless in severe cases, and these alone should be condemned since the mild cases recover spontaneously," (p. 153). In a book of this character such a statement ought, at least, to be offset by the teachings of Professors Pepper and Jacobi on this subject, but we look in vain for them. In fact, the most serious objections that can be brought against the work is the relatively small importance given some of our best American authorities in pædiatrics. Why, for instance, should Herroch, of Berlin, be quoted forty times and Drs. Jacobi, Plant and Holt given only a single reference, and Armand Semple, of London, thrice the prominence of J. Lewis Smith, of New York? It certainly awakens a suspicion that the preface, to the contrary notwithstanding, the book has been scissored from only a limited number of authorities and a restricted file of medical journals. Nevertheless, the book has many new and valuable points for one interested in the therapeutics of childhood. The subject of the hygeine and general treatment of infancy contains much that can be found elsewhere in no other single work, though the addition of Young's posology and Ellis' division of drugs would have enhanced its value. The list of diseases contains several that are rarely met with in this country, but unfortu-

nately, omits all treatment of such common troubles of children as adenitis, œsophagitis, ring-worm, constipation and all affections of the eyes, ears, or heart.

The type and paper of the book are good, and it is remarkably free from the typographical errors so usual in such collections of prescriptions. It is also provided with good indices of diseases, remedies and authors referred to. Among the latter we note four of our Chicago physicians, and from internal evidence furnished by the prescription on page 292, conclude that the Dr. Davis, of New York, there quoted really resides in Chicago. M. P. H.

HAND-BOOK OF DISEASES OF THE SKIN. *Edited by* H. V. ZIEMSSEN, M. D., *Professor of Clinical Medicine in Munich, Editor of Ziemssen's Cyclopædia of the Practice of Medicine. Contributors:* Prof. H. AUSPITZ, M. D., *Vienna;* V. BABES, M. D., *Budapest;* Prof. E. GEBER, M. D., *Klausenburg;* E. LESSER, M. D., *Leipzig;* P. MICHELSON, M. D., *Kœnigsberg;* Prof. A. NEISSER, M. D., *Breslau;* Prof. E. SCHWIMMER, M. D., *Budapest;* P. G. UNNA, M. D., *Hamburg;* E. VEIEL, M. D., *and* TH. VEIEL, M. D., *Cannstatt;* A. WEYL, M. D., *Berlin; and* Prof. H. V. ZIEMSSEN, M. D., *Munich. Illustrated with eighty wood engravings and color prints. New York:* WM. WOOD & COMPANY. 1885. pp. 658.

Criticism of this elegant volume, the most elaborate which has appeared in the English language since the production of Hebra's famous treatise by the Sydenham Society, is disarmed at the very outset. The American publishers state in their preface that the work is produced for free presentation to subscribers to the Cyclopædia translated by their agents. There is an old proverb relating to gifts, which is as true to-day as when it was first enunciated in the desert of Arabia.

But there is much in the present volume that will endure the severest criticism to which the best of books should be always subjected. The names of the distinguished authors who have co-operated in its production, and their active participation in some of the largest and most valuable attainments of modern pathology, gave to the original work an interest and value that will for many years insure to it the importance which it now possesses in the library of the man who devotes himself to the special study of cutaneous diseases. The translation has been remarkably well made by the American collaborators; and where they have taken the liberty of somewhat abridging the original text, we have found by actual comparison with the other that the work has been effective in the direction of simplicity and value.

It should be remembered, moreover, that the volume is to be read and interpreted in the light of those that have preceded it. Thus, for example, the ingenious chapter on syphilis, by Neisser, is admitted to be a justifiable interpretation of the disease under discussion as one induced by the presence of bacteria,—a theory which has, if we may believe the later investigations of Lustgarten* and others, been confirmed by demonstration since the original text was printed. But the student whose knowledge of the disease was limited to the facts contained in this chapter, would be sadly ignorant of the several clinical pictures presented in course of its fullest evolution. For these, it would be necessary for him to turn to the chapters consecrated to the same subject by Bäumler in the third volume of the Cyclopædia.

If one may be permitted to criticise in any degree a work of this character, it should be purely and solely from the

*Die Syphillus-Bacillus von Dr. Sigmund Lustgarten, Assist., etc, mit 4 chromolithographirten Tafeln. Wien, 1885.

American stand-point. After patient labor, it has been at last proven, though long disputed, that the skin diseases of this country differ in the type and in the numerical preponderance of each from those seen elsewhere. For example, there have been noted during the last severe winter, in the northwestern states of this country thousands of cases of pruritus hiemalis. Numerically, this disorder has, in the region named, surpassed the skin diseases of all kinds encountered by the general practitioner. Yet the subject is dismissed in the pages of the work before us with a paragraph, Prof. Schwimmer adding that he has known "several persons" to be affected in this way in winter; while a score of pages are devoted to leprosy; and two to rhinoscleroma, no case of the latter having yet been reported by an American author of whom we have knowledge!

The same neglect, or omission, may be observed in relation to numerous contributions made by American authors to dermatological subjects of importance. The operation for permanent removal of hairs by electrolysis, for example, is dismissed with the brief conclusion that one author reports a return of fifty per cent. of such hairs after removal—a statement that on its face bears the very best proof of the value of so simple an operation, which unquestionably after patient repetition in the end accomplishes better than all other devices the result sought for. No mention is made too of Duhring's carefully studied and amply illustrated case of neuroma, reported with full pathological details, not only in his papers on that subject but also in his treatise, and yet the total number of cases of true neuroma of the skin might probably be counted on the fingers of the two hands, while the coarse illustrations of the exceedingly rare disease, given on page 613, are of "cicatricial neuroma" and "amputation neuroma" only.

The treatment of eczema of the face, exclusive of the dis-

ease as it recurs in the eyelids, nostrils, and lips, is here concluded in just five lines. It is simply astonishing to what extent book-makers in general, having a really laudable desire to cover the ground shadowed by their system of diseases, ignore the demands of practice and the urgent necessities of sufferers. Erythematous eczema of the face is, irrespective of any involvement of the nostrils, lids, and lips, one of the most formidable, distressing, persistent, and deforming of all cutaneous disorders. Its characteristics are so clearly marked that it well-nigh stands alone among the protean manifestations of the disease which it represents. A good-sized volume might well be written upon the sole subject of its management and therapy.

Yet several of the small manuals published in this country are more practical and useful guides in the treatment of this affection than the large Cyclopædia volume which comes to us heavy with the weight of German authority.

The salve-muslins, and plaster-muslins so frequently named in the volume as suitable topical applications in cutaneous diseases, are scarcely known to the general practitioner in this country, and are for many of the latter quite out of reach. We in this city have imported and employed them to some extent, but their adaptability to many patients affected with cutaneous maladies is more limited than is generally supposed to be the case; while a piece of muslin of suitable size, thickly spread with a freshly prepared salve, is often more efficacious than the imported mulls, even if carefully preserved in air-tight boxes.

Too much praise, cannot, however, be awarded the Messrs. Wood for the indefatigable pains taken in bringing out the present volume. It is a triumph of their enterprise, of their liberality, and of their wise judgment. Had the undertaking seem-

ed formidable at the inception, it became still more so as it progressed. The original estimate of fifteen volumes of from 500 to 700 pages (upon which, by the way, the price per volume for the American work was fixed), increased at an alarming rate. New matter and material accumulated, and the authors could not be confined in their MS. to the original estimate of pages required. Almost at the start two alternatives presented themselves to the American publishers—either to increase the number of volumes, and thereby place the burden of the extra expense upon the subscribers, or to increase the number of pages in each volume, and assume the loss themselves. The publishers, with unprecedented generosity, and without even an announcement to that effect, chose the latter alternative; and so, notwithstanding that the increase amounted to upward of fifty per cent. more matter, they carried the work through to the end, assured that the benefit to their subscribers would be thoroughly appreciated by them.

While we can but believe that the work is better suited to the shelves of the library especially devoted to dermatological literature than to those of the conventional "busy practitioner," we must acknowledge our great debt to the publishers in issuing this volume, and at the same time heartily congratulate the subscribers to the American translation of V. Ziemssen's Cyclopædia on the fact that they have had presented to them such a valuable and instructive work. J. N. H.

THE MICRO-CHEMISTRY OF POISONS. *By* THEODORE G. WORMLEY, M. D., PH. D., LL. D. *Philadelphia:* J. B. LIPPINCOTT. *Chicago:* W. T. KEENER, *96 Washington Street.*

A new edition of a work as well known as Professor Wormley's Micro-Chemistry of Poisons cannot fail to attract a good deal of attention from those interested in that special branch

of chemical investigation. The second edition, which appeared a few months ago, is distinguished from the first, chiefly by the larger amount of matter it contains, and the addition of several new plates. These plates constitute, of course, the characteristic feature of the work, and their history is too well known to need an explanation here. But while being in a certain sense the characteristic, they are far from being the most important part of the book, and it is perhaps not far from the truth to say that without them the manual would possess nearly the same *practical* value, although the term "micro," as used by the author, could no longer be applied to it.

A book of no little interest could be written on the use and abuse of the microscope, and in the present instance, it seems to me, we have an illustration of how far one's enthusiasm may carry him in the choice of means not always best adapted to the end to be attained. The microscope renders us invaluable assistance in many investigations, often deciding the nature of a substance where chemical methods utterly fail; but any one who has had experience in the examination of microscopic crystals must understand the difficulties in the way of obtaining characteristic forms, and how far these difficulties are increased when the material to be tested has first to be separated from complex organic mixtures.

Where chemical and physiological tests fail, there is certainly little use in trying to discriminate with the microscope, and in this connection the words of Woodman and Tidy are worth quoting :—"We consider it, therefore, unnecessary to enter into any descriptive detail, as others have done, of processes for the selection of millionths of a grain by such methods as the collection of microscopic sublimates, which we admit are as exquisitely beautiful as they are, in our opinion, totally unfitted for practical investigation. If such poisons

* * * cannot be detected by their reactions in a test-glass, we are doubtful whether we should ever be justified in giving positive evidence of their presence on a criminal trial, by their microscopic forms and microscopic reactions."— *Forensic Medicine, p.* 84.

I am inclined to think Professor Wormley himself recognizes the truth of this, as the larger part of his book is devoted to the discussion, not of microscopic forms, but of the regular chemical tests, methods of separation and physiological actions of the various poisons. One can speak only in terms of the highest praise of this part of the book, as also of that relating to the selection and discrimination of blood stains. It is interesting to note that Professor Wormley takes a very conservative view of the value of microscopic measurements in determining the nature of the blood corpuscles—a view which doubtless finds favor with all investigators, save those belonging to the ranks of the professional experts. J. H. L.

ON THE TREATMENT OF GONORRHŒA. *By* J. L. MILTON, *Senior Surgeon to St. John's Hospital for Diseases of the Skin, London. Fifth edition, 8vo., cloth, pp. viii., 306. New York:* WILLIAM WOOD & Co. 1884. *Chicago:* W. T. KEENER, *96 Washington Street.*

This was the February issue of Wood's Library, and is a thorough exposition of the subject of which it treats. The following from the preface will give a good idea of the different chapters: "The following work contains, in an abridged form, the substance of the earlier editions; the papers on scalding, chordee, and gonorrhœa printed in the *Medical Times;* those on the treatment of gonorrhœa published in the *Medical Circular*, and several papers read before the Medical Society of London, and the North London and Western Medical Societies. The section on the treatment of gleet, on

gonorrhœa in the female, on orchitis, and on gonorrhœal rheumatism, have been revised and amplified. Those on gonorrhœal affections of the heart and pericardium, the peritoneum and pleura, dura mater and sheath of the spinal cord, on gonorrhœal pyæmica, pyelitis, etc., are now added for the first time." Matters pertaining to treatment are discussed at length, and a comparative study of the different therapeutical means is attempted, but the writer's experience seems to have been so vast that he has come to give up any sanguine expectations from remedial agents. The vast amount of quotations and references unfit the book for ordinary practitioners, but render it doubly valuable to a teacher or a specialist.

H. D. V.

CLINICAL STUDIES ON DISEASES OF THE EYE, INCLUDING THOSE OF THE CONJUNCTIVA, CORNEA, SCLEROTIC, IRIS, AND CILIARY BODY. *By* DR. FERDINAND RITTER VON ARLT, *Professor of Ophthalmology in Vienna. Translated by* LYMAN WARE, M. D., *Surgeon to the Illinois Charitable Eye and Ear Infirmary; Ophthalmic Surgeon to the Presbyterian Hospital and to the Protestant Orphan Asylum, Chicago. Philadelphia:* P. BLAKISTON, SON & CO., *1012 Walnut street. Chicago:* W. T. KEENER, *96 Washington street.*

This is a most excellent translation of a very admirable work.

Professor Arlt holds an exceptionally high position in the estimation of all students of ophthalmology throughout the world as a clinical lecturer.

He is the author of a very noteworthy treatise on diseases of the eye, published so many years ago (thirty-five), almost at the dawn of the wonderful development of modern ophthalmic science, that it is now almost obsolete, but still a very interesting and instructive book.

The present work, limited to the tissues indicated on the

title page, is an expression of Professor Arlt's remarkably long and extensive experience.

One could wish the author and translator would place in the hands of the American student a complete series of clinical lectures on the remaining tissues of the eye.

The mechanical work of the volume is in harmony with the high character of its scientific and literary merits. E. L. H.

THE OLEATES: AN INVESTIGATION INTO THEIR NATURE AND ACTION. *By* JOHN V. SHOEMAKER, A. M., M. D., *Lecturer on Dermatology at the Jefferson Medical College, etc., Philadelphia.* F. A. DAVIS, ATT'Y. *1885.*

The author of this little book has devoted so much time to a study of the therapeutical effects of the several oleates that he may be said to have succeeded in associating his name with the subject. There can be little question but that several of the oleates, more particularly those of zinc and copper, should enjoy a position in the therapeutics of external treatment second only to that in which the oleates of lead and mercury were placed long before the number of combinations of this sort had reached the present figure. Certainly Attfield and Marshall could not have suspected, when they first wrote in connection with the subject, the extent to which the usefulness of the two oleates named would be eventually acknowledged.

Dr. Shoemaker's little book will prove useful to those who are interested in this subject, for they will find the advertisement of a well-known drug house printed after the conclusion of the pages written by the author, in which oleates manufactured and sold by the former are duly enumerated.

The general style of the author may be illustrated by the following extracts:

"Although this had been disputed by some, who, however,

constitute no medical authority, having a commercial interest only in the sale of their goods, and for pharmaceutical reasons lay more stress on their handsome appearance than on their utility, I think this matter should rest with the physician to decide rather than to the biased vendor." P. 61. (*Sic.*)

Again: "The communications that have appeared from the latter class speak of their action disparagingly, and their effects as problematical, but are devoid of research, which appears when they speak of quinine oleate being limited to inunctions for its systemic impression, showing an absence of practical experience or proper deductions from their results." P. 110.

EXPERIMENTAL PHARMACOLOGY. A HAND-BOOK OF METHODS FOR STUDYING THE PHYSIOLOGICAL ACTIONS OF DRUGS. *By* L. HERMANN, *Professor of Physiology in the University of Zürich. Translated, with the author's permission, with Notes and Additions, by* ROBERT MEADE SMITH, M. D., *Demonstrator of Physiology in the University of Pennsylvania. With 32 Illustrations on Wood. 12 mo., cloth, pp. 201. Philadelphia:* H. C. LEA'S SON & CO. *1883.*

A most valuable little book, especially adapted for students and experimenters, which will lead many on the way to great discoveries in the field of new drugs. Only by such means as are herein employed shall we come to purify our materia medica of all trash, and test successfully the host of homeopathic drugs brought into repute after they were thrown out of the Pharmacopœia.

"The translator has attempted to elucidate the text with a careful selection of illustrations; and he trusts that his voluminous additions, which constitute nearly one-half of the entire volume, will render the work a more perfect guide to the student." (Preface),

These additions are even more practical and valuable than the original, and the American translator deserves much credit.

The make-up of the volume compares well with the other books published by Henry C. Lea's Son & Co. H. D. V.

A TEXT-BOOK OF PRACTICAL MEDICINE. *By* ALFRED L. LOOMIS, M. D., L. L. D., *Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York; Visiting Physician to Bellevue Hospital, etc. With 211 Illustrations. 8vo., cloth, pp. XV—1102. New York:* WILLIAM WOOD & Co. *1884. Chicago:* W. T. KEENER, *96 Washington Street.*

Although so many valuable books have been lately written on the various specialties of medicine, especially in this country, but few really practical text-books of medicine have appeared. The reason of this is that while a division of labor in the profession has resulted in wonderful progress, very few general practitioners have been able to follow every line of this advancement. However, Dr. Loomis is well abreast of the times and has produced a work which is bound to stand after several antiquated translations of foreign authors have passed into oblivion. The clearness of his style, his thorough discussion of important modes of treatment, and the abundance of illustrations, will do much towards securing for this work a great popularity; and although there are other works on practice fully as good as this, no student or practitioner will regret his purchase when Loomis' Practical Medicine stands within reach on the shelf. H. D. V.

EXPERIMENTAL RESEARCHES ON CICATRIZATION IN BLOOD-VESSELS AFTER LIGATURE. *By* PROFESSOR N. SENN, M. D., *of Milwaukee, Wisconsin. Extracted from the Transactions of the American Surgical Association, vol. I. 1884.*

Professor Senn's recent valuable contribution to our knowledge of "Cicatrization in Blood-vessels After Ligature" has

attracted so much attention at home and abroad that we append, at this late day, his conclusions:

A careful examination of the literature on the subject of this paper, as well as the results of my own investigations, warrant me in submitting for your further consideration and discussion the following conclusions:—

I. All operations on blood-vessls should be done under antiseptic precautions.

II. The aseptic catgut ligature is the safest and most reliable agent in securing provisional and definitive closure of blood-vessels.

III. A thrombus after ligature is an accidental formation which never undergoes organization and takes no active part in the obliteration of a vessel.

IV. The intra-vascular or definitive cicatrix is the exclusive product of connective tissue and endothelial proliferation.

V. Permanent obliteration in arteries takes place in from four to seven days, in veins in from three to four days.

VI. In ligating vessels in aseptic wounds the vessel sheath can be opened freely without compromising the integrity of the vessel tunics, and such procedure renders the operation safer and easier of execution.

VII. The double aseptic catgut ligature should be preferred to the single ligature in ligating large arteries in their continuity near a collateral branch, and should always be employed in all operations of tying varicose veins in their continuity as the safest and most effective measure in producing definite obliteration.

We are not able to fully agree with Professor Senn in *all* his conclusions, nor do we deem them entirely justified either by "a careful examination of the literature on the subject" or the results of his own investigations. During the discussion of his paper, probable sources of error in the experiments and fallacies in argument were pointed out by Dr. Donald Maclean, of Detroit, Dr. Henry F. Campbell, of Augusta, Dr.

E. H. Gregory, of St. Louis, Dr. J. S. Billings, United States Army, Dr. B. A. Watson, of Jersey City, and Dr. C. B. Nancrede, of Philadelphia.

The bibliography is not complete. The researches of French surgeons have received less attention than they merit, while the important investigations of Dr. O. F. Shakspeare, and B. Alexander Randall, of Philadelphia, are scarcely more than mentioned.

We are of the opinion that a large part of the value of the paper lies in the stimulation imparted to original research,—a field, with whose topography American surgeons are too little acquainted.

Professor Senn is entitled to the gratitude of the profession for this, as for numerous other meritorious contributions to surgical literature. W. W. J.

A MANUAL OF DERMATOLOGY. *By* A. R. ROBINSON, M. B., L. R. C P. *and* S. EDIN., *Professor of Dermatology at the New York Polyclinic, etc., etc. 8vo, cloth, pp. 647. New York:* BERMINGHAM & COMPANY. 1884.

The author of this new and interesting treatise on diseases of the skin, announces in his preface that this is the precursor of a volume devoted to the same subject, that is to be larger, more pretentious, and more original in character. An examination of the pages before us justifies the opinion that if the succeeding work realizes the promise that is here given, it will assuredly command the success it deserves.

Dr. Robinson has long been known to the profession of this country by his valuable contributions to dermatological subjects made from time to time in the columns of the medical press. Almost without exception these papers have been characterized by a merit due to original and laborious patho-

logical research. As a consequence, few of the later contributions to Dermatological literature of any pretension to a systematic exposition of the entire field, can be compared with the volume before us. In merely glancing over its pages, one is struck with not only the number of illustrations, most of them drawn from microscopical preparations made by the author's hand, but also by the number of subjects to which he has by his own writings made the latest and in many senses the largest contributions. Thus, for example, the brilliant discovery, quite his own, of the existence of both afferent and efferent nerve fibres in the tactile corpuscles, and of the double axis-cylinders in the Pacinian bodies; his well-known establishment of the real relation of several of the derangements of the sweat-secretion to the anatomical seat of the disorder; his clear demonstration of the difference between lichen planus and lichen ruber, an achievement which alone would entitle him to position as a pathologist of high rank,—these results of his untiring industry serve to embellish his pages with a lustre which only too few modern authors can hope to enjoy.

Dr. Robinson, as is well known, is no narrow specialist, but a physician in large general practice, and his pages abound with proofs that his field of labor is not bounded by imaginary lines. His style is terse and effective, his descriptions clear, his suggestions always practical and unbiased by prejudices. His chapter on syphillis is particularly good; and we are pleased to note here that in describing the earliest exanthem of that disease he uses the adjective "macular" instead of "erythematous," in naming the syphiloderma, thus enlisting in the effort to dismiss the abandoned phrase to the old-fashioned category of "syphilitic psoriasis," "syphilitic roseola," and "syphilitic lupus,"

The classification of diseases adopted in the present work is

that of Hebra, slightly modified. Of that adopted by the American Dermatological association, the author remarks that it "was decided by balloting, and never should have seen the light." There are many who will not agree with him in this rather sweeping statement. The classification of the American Dermatological Association was modified at its last meeting at West Point, and in the balloting by which position was assigned to each disease, Dr. Robinson took an active part. Like his own, that classification is based on Hebra's system. There has been no classification ever published in this country which can be compared in its educational influence with that of the American Dermatological Association. Hundreds and thousands of young American physicians have acquired, through its aid, a fund of information respecting at least the rudiments of cutaneous medicine. It is not a perfect classification; indeed, none can be framed for years to come which will even approximate such a standard of perfection. At this hour, when a new bacillus is springing into the view of almost every explorer of the pathological field, it is possible to anticipate the day when the present narrow limits of the class in which are found the parasitic disorders may be enlarged till the new class VIII, surpasses in dimensions all of its seven fellows together. But, failing the precise knowledge which such an issue implies and demands, we are sure that the classification which Dr. Robinson thinks should not have seen the light, is still the best working system for the profession at large that it at present possesses.

The work before us is an admirable text-book, and, judged by all standards, can be safely recommended to the practitioner as a valuable aid in the study of diseases of the skin.

J. N. H.

VOICE, SONG AND SPEECH: A PRACTICAL GUIDE FOR SINGERS AND SPEAKERS; FROM THE COMBINED VIEW OF VOCAL SURGEON AND VOICE TRAINER. *By* LENNOX BROWNE, F. R. C. S., Ed., AND EMIL BEHNKE, *Teacher of Voice Production, etc. With numerous Illustrations. 8vo., cloth. pp. XV—322. New York:* G. P. PUTNAM'S SONS, *1884; Chicago:* JANSEN, MCCLURG & CO.

The value of this work is greater on account of the rarity of such treatises. Then it is indispensable to voice trainers and to physicians as well. Its numerous plates, including several photographs of the vocal cords, are well executed, and the whole volume is made up in the English high style with a quantity of blank space. As a book of reference it is a valuable addition to any library. And it will convey to any physician a good deal of information for which he may often vainly be called upon by the operatic class. The latter chapters treat of the Ailment of the Voice Uses, and of Defects of Speech—Stammering, etc. H. D. V.

NEWS ITEMS.

THE ALUMNI ASSOCIATION PRIZE OF THE COLLEGE OF PHYSICIANS AND SURGEONS, N. Y.—This prize of five hundred dollars, offered to the competition of the Alumni of the College, will be awarded at the next Annual Commencement, May 11, 1866.

The competing Essays must embody the result of *original research* upon some medical subject. They must bear a motto or device, and be accompanied by a sealed envelope bearing the same motto, and containing the author's name and address.

Essays should be sent before April 1, 1886, to any of the committee undersigned in New York city.

E. C. SEGUIN, M. D.
J. WEST ROOSEVELT, M. D.
M. ALLEN STARR, M. D.

Messrs. R. L. Polk & Company, of this city, announce, as in preparation, a new Medical and Surgical Directory, in which they propose to give the name and address of every physician in the United States; also, the name of the college, whether regular or irregular, from which he or she graduated, and the year of graduation, This is to be supplemented by a list of (the names of) Medical Journals published in the United States, names of all Medical Colleges in our country, State Boards of Health, and the laws of different States governing the practice of medicine, and other information relating to the medical profession, of interest to physicians.

LOCAL NEWS.

PROFESSOR E. O. F. ROLER has been elected Emeritus Professor of Obstetrics in the Chicago Medical College. Adjunct-Professor W. W. Jaggard has been elected Professor of Obstetrics in the same college.

Dr. N. S. Davis, Jr., Lecturer on General Pathology and Pathological Anatomy, will supply, during the ensuing session, the vacancy caused by Professor Christian Fenger's resignation. Dr. Davis is about to return from a residence in Vienna and Heidelberg, where he has been engaged in the study of Pathology.

DR. SENN, of Milwaukee, Wisconsin, has accepted the Chair of Principles and Practice of Surgery in the College of Physicians and Surgeons, of Chicago, and Dr. Christian Fenger that of Clinical Surgery, in the same college.

SANITATION IN CHICAGO.—Dr. Oscar C. De Wolf, Commissioner of Health, of Chicago, has received an appropriation of $100,000 from the City Council for the purpose of improving the sanitary condition of Chicago. Thirty-four Sanitary Inspectors have been appointed, and it is intended that 50,000 houses shall be inspected before the first of September.